Things May be Slow During the Summer Dog Days, but Flying Saucers are Frisky as Ever!

SAUCERS—be they fact or fancy—were causing quite a stir these hot, summer days. In LA the show manager on the Home Show offered to sign a $1 million contract with the first outer-space pilgrim who could show a properly drawn birth certificate and custom's clearance. There was no taker. Around some of the lake resort areas, where sea serpents were the stock in trade to lure vacationers, flying saucers were sighted. In Canada one newspaper cried "Enough! We shall publish no more news of flying saucers until one lands," the announcement said. Paul Coates, *LA Mirror* columnist, took advantage of the August dog days to serialize the chronicle of a small one-eyed man who landed out Van Nuys way and caused quite a fuss *(see picture)*. The *New Republic* turned its attention from McCarthyism and the body politic long enough to growl cantankerously that no other planets in the solar system could support life and that was that. What's more, it hinted, people should be thinking about serious matters, instead of this spacemen tommyrot. Motion picture organizations had a long list of recorded titles for saucer movies which had been filed by imaginative writers in hopes that some producer might want to get in on the act. Scientists reproduced the phenomena in laboratories and they were explained as the result of both temperature inversion and light reflection. Pro-saucer authorities wanted to know how pilots pursuing the objects could be tossed around in the air current backwash if they were just light rays. Hat designers who had tried to cash in on the flying saucer phenomena two years ago found that the well-dressed lady still wouldn't buy. The Air Force admitted that it was again investigating the sightings, after previously declaring that it was all nonsense, and said 80 per cent of the sightings had been satisfactorily explained. Radar sightings around Washington, D. C., were announced and as quickly dropped from front pages. Revival ministers ran huge ads in Saturday newspapers telling the public to hurry over to the big tent meeting and find out what flying saucers really were. Letters from saucer fans were published in newspapers. While the US seemed to be getting most of the attention, other countries recorded saucer lightings, also. The voice-of-doom set predicted the world's end. Saucers were: (a) Men from Planet X who were about to wipe out the earth by fire; (b) Fallen angels who had escaped hell's fire; (c) Returning souls from someplace.

L.A. Mirror

Paul Coates' Saucer Visitor.

One Leonard Wibberly — who identifies himself as a pro-sea serpent man — blew down the whole saucer myth in a series of articles in the *LA Times*. The Western Amateur Astronomers' convention assembled in Berkeley to stroke its collective chin as learned professors discoursed on light years and oxygen supply. Theologians pondered the problem of original sin. If the beings piloting the flying saucers were living they were the work of God. Unless they, too, had experienced a counterpart of Adam and Eve they were still in a state of eternal life. Therefore if they landed they couldn't be killed.

On a more material level, science-fiction fans speculated that the creatures piloting the saucers might breathe nitrogen, ammonia or any number of things. This offered all kinds of frightening possibilities.

Meanwhile, the sightings went on almost nightly and radar screens were squeaking all over the nation. But, at fortnight's end, no one actually knew what flying saucers were. And summer was nearly over.

Press

L.A. Fortnight P. 14 Sept 15/52

A Saucer Full of Applesauce?

THE FEATURE article in the September issue of *True* contends that there are some jitter merchants who cleaned up on the flying saucer hysteria.

The yarn in question is a detailed take-apart job of *"Behind the Flying Saucers,"* a book published by Henry Holt & Co., some time ago. Author of the book is Hollywoodite Frank Scully, a columnist for weekly *Variety,* who makes a hobby of thrashing about in muddy water. It is the contention of the piece in *True* that Scully's best-selling book didn't settle a bit of the mud and, in fact, stirred up a good deal more. What's more, it made the Air Force out as a villainous agency dedicated to confusing the already confused US public on the matter of saucers.

The hub of the book was that little 3-foot men, propelling the saucers by magnetic force, had landed on the US proper. Some of these extra-terrestrial beings were discovered by the Air Force, burned to a turn, and carted off. Then the Air Force flubbed the operation by allowing every Tom, Dick and Harry to carry off bits of the saucer as souvenirs.

This vital news was all but lost to the world but for a public-spirited oil promoter and a remarkable scientist, likewise public spirited, who was hounded by government agencies so that he feared for his scientific life.

Scully's book impressed J. P. Cahn, a San Francisco newspaperman, immensely. After reading same, he approached his old newspaper, the San Francisco *Chronicle,* with a proposition for a run down on its authorship and material. Cahn reasoned that events described were either true or false. If evidence of a visitation from another planet was true, this was the biggest story of all time. If false, Cahn argued, the book was a dangerous hoax and should be discredited.

Cahn's careful investigation disintegrates all belief in "little men" and exposes Silas M. Newton, the oil man, as a dubious merchant in myth. The house of mystery built so carefully to shelter "Dr. Gee," the scientist, is reduced to ashes. Scully, the reporter prefers to believe, was taken in by some fast talk. Scully, however, clings to his story in the face of Cahn's damaging research and has sought to discredit the reporter with his newspaper and has threatened

J. P. Cahn: he smelled a fish and found it.

libel action against the magazine.

At press time, no suit has been filed and the deep-digging reporter is not worried. Meanwhile, he is following up some of the reader response and finds some of it more than entertaining. He may, he says, get an exciting new lead on this particular saucer story that may well top his original findings.

John Phillop Cahn is 33, a Stanford graduate, who cut his teeth as a reporter on the *Chronicle.* He left this field to take over his father's clothing business and has since sold the enterprise. He is presently the Northern California wholesale sales manager for the British Motor Car Distributors, Ltd., and enjoys his work, but likes to keep his hand in as a journalist.

Curiously, the *Chronicle* did not publish the story, though they underwrote the investigation. It was *True,* the bare-chested magazine for men, which pounced on the yarn.

Twisteroo

IN 1933 THE Newspaper Guild — the first successful reporters' union — was organized, and in its constitution it was specifically forbidden that any newspaperman should be denied membership because of his political beliefs.

But as the world turned for two tortured decades, the error of considering Communism as a "political belief" in the US became more and more apparent. To guildsmen it became so apparent that they fired from their own organization suspected Communists.

But last fortnight, they pointed to their 1933 constitution and to a clause in the California state labor laws which forbids dismissal for "political beliefs"; contended that two LA Daily newsmen had been wronged.

Movie critic Darr Smith had been struck from the rehiring list. Rewrite man Vern Partlow was fired. Both had refused under oath to say whether or not they had been or were Communists.

Special arbiter Paul A. Dodd, Dean of Letters and Science at UCLA, ruled that whether or not anybody had proved Smith and Partlow Communists was not the issue. But after they had been named by witnesses as one-time Communists before the House Un-American Activities Committee, Dodd said that "the paper had a right to expect employees so accused to answer these charges.

"A newspaper has a quasi-public responsibility. . . . In view of our nation's struggle today against the forces of Communism, all those who hold a place of public influence must be ready to stand up and answer the Communist charges," Dodd said in his opinion.

Smith and Partlow had both refused to answer the charges, though Partlow had been promised his job back if he would swear the charges were not true.

Is That So?

WHEN SUNSET was made into a Western regional magazine back in 1929, few people in Western advertising circles gave its publisher, L. W. Lane, much encouragement. "Regional consumer magazines just don't succeed," they told him.

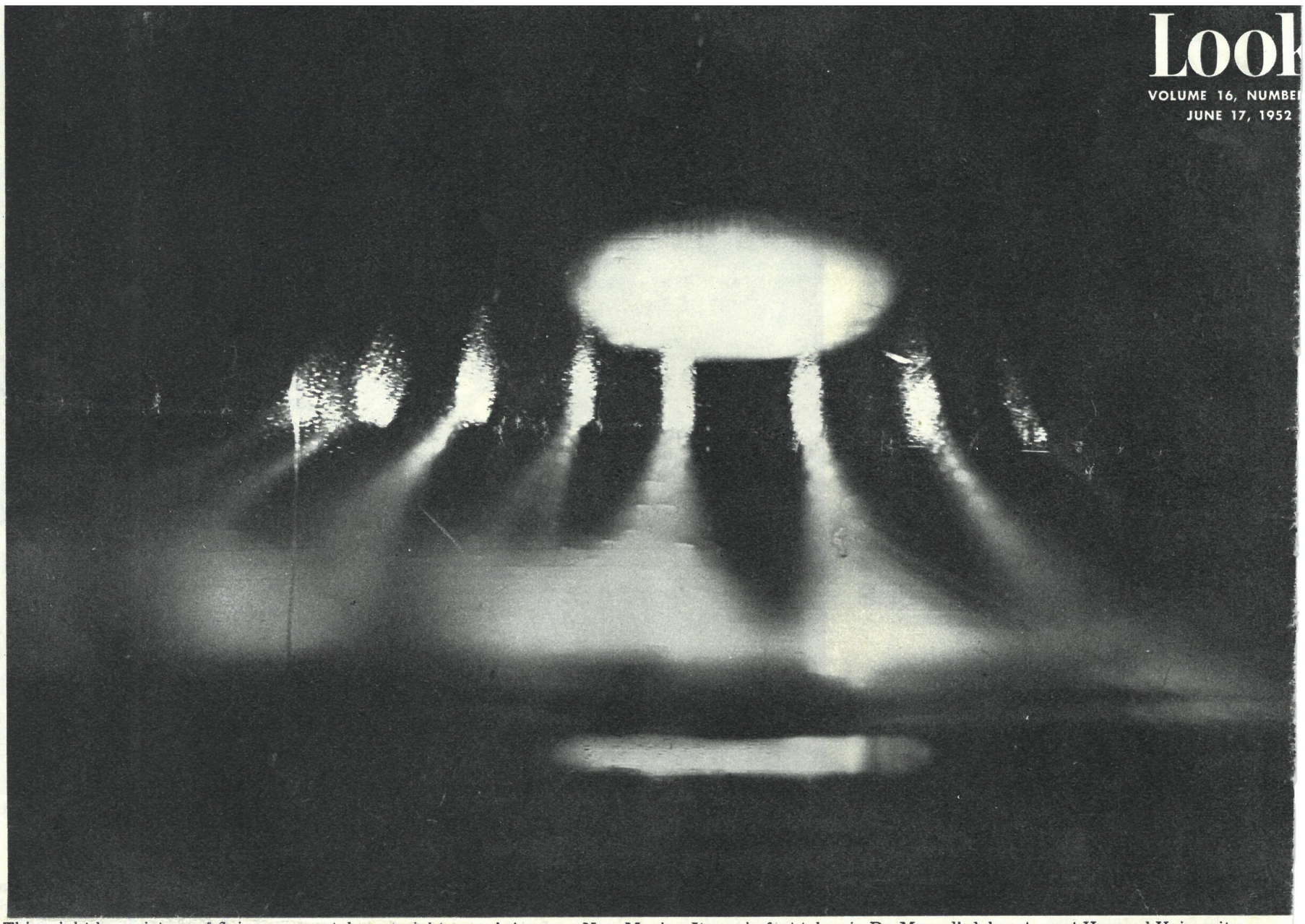
The 1952 advertising records show just how wrong they were.

In August, for the second issue in a row, advertisers placed more pages of advertising in *Sunset* than in any of the largest "national" magazines in its home service and travel field.

According to "Printers' Ink" reports, the August *Sunset* carried 81 pages of advertising; Better Homes & Gardens, 71 pages; House Beautiful, 70; American Home, 38; Holiday, 35; House & Garden, 28; National Geographic, 25; Living, 24.

In July, *Sunset* also led the group.

Look
VOLUME 16, NUMBE
JUNE 17, 1952



This might be a picture of flying saucers taken at night over Arizona or New Mexico. It was in fact taken in Dr. Menzel's laboratory at Harvard University.

THE TRUTH ABOUT FLYING SAUCERS

One of America's leading astronomers goes into his laboratory at Harvard and disposes of the flying-saucer myth. He adds simple instructions for making flying saucers in your own kitchen

By Dr. DONALD H. MENZEL

Donald H. Menzel is professor of astrophysics and associate director of solar research at Harvard University. His work on flying saucers was done in response to a request from LOOK. The Air Force has expressed a lively interest in it.

I SUPPOSE that I should be especially well qualified to write about flying saucers since I happen to be one of the few persons who has actually seen one.

My solar studies take me frequently to Colorado and New Mexico, and I was at the Holloman Air Base, near Alamogordo, N. M., at the height of the flying-saucer scare. That very morning, I had glimpsed what seemed to be several saucers moving overhead—until I focused my eyes more clearly and recognized the objects as weather balloons. That afternoon, I expressed my belief that most of the saucers could be thus explained. But others in the group—including several well-known scientists—indicated that there was probably more to the saucer story than that.

Early that evening, I had my second attack of saucers. I was in the back seat of an automobile, being driven toward Alamogordo and admiring the full moon as it rose over Sacramento Peak toward the east. A few degrees north of the moon, I noticed what seemed to be a bright star, and then a second star not far from the first. Casually, I assumed that they were Castor and Pollux in the constellation of

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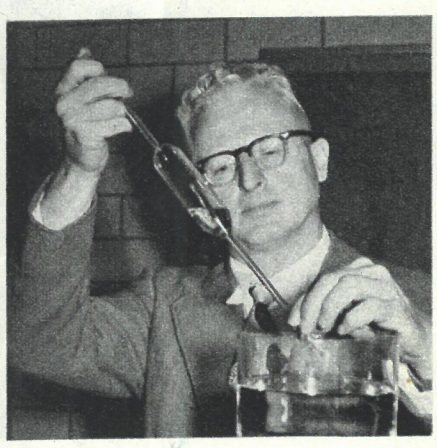
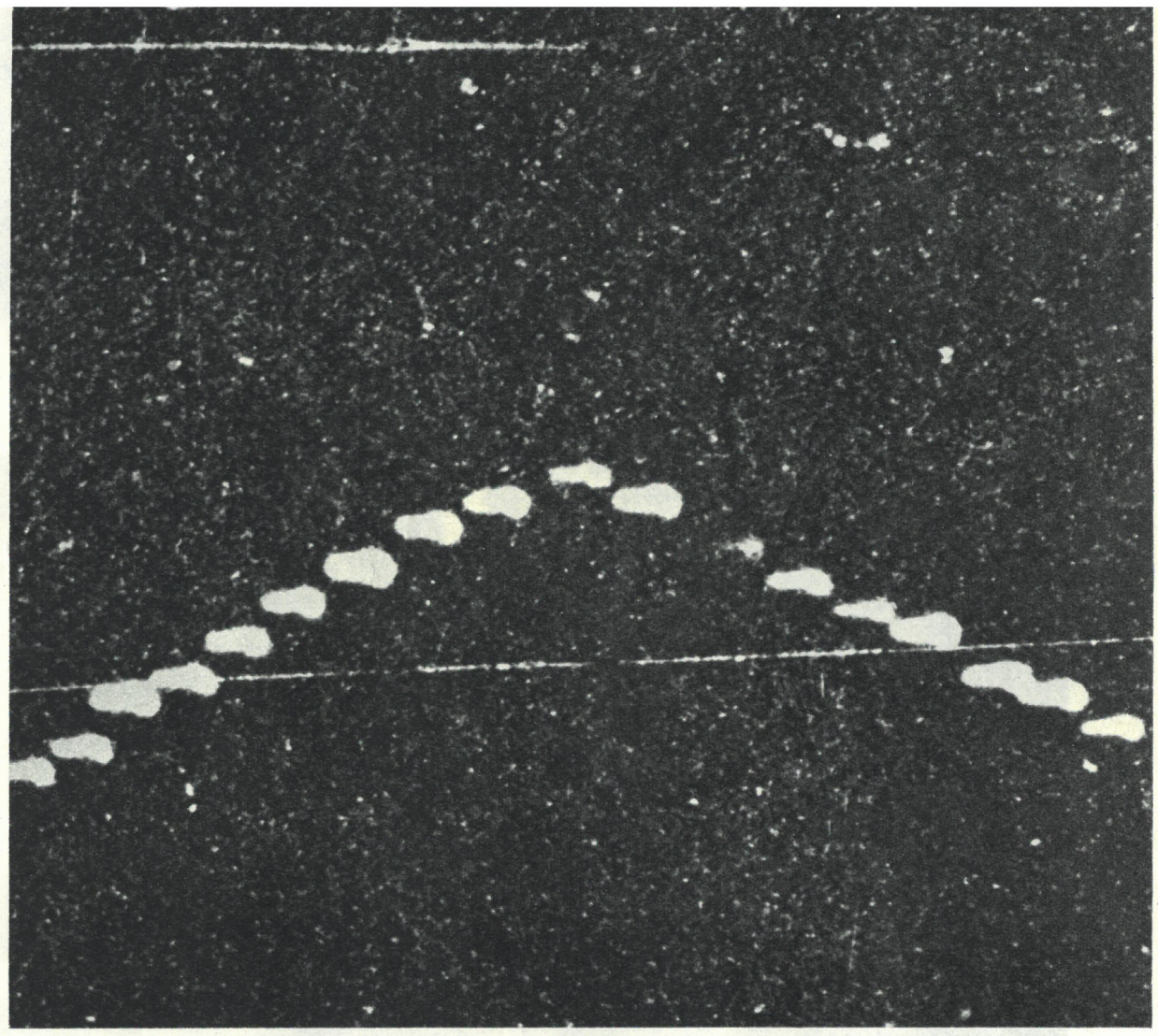


Orderly processes of natural laws explain saucers



These are the Lubbock Lights, as photographed Aug. 30, 1951, over Lubbock, Texas, by 18-year-old Carl Hart, Jr.

Gemini. Then, very suddenly, I realized that Gemini was a winter object; the two stars had to be something else.

Like most astronomers, I am always hopeful of finding a nova (exploding star) which can be seen with the naked eye, so I rapidly opened the window of the car for a better look. I could bring neither of these objects into clear focus, although nearby Antares was sharp. Both hazy disks shone with a slightly bluish light. They were, in a sense, "flying" simply because they were elevated. Suddenly, alive to the fact that I was seeing something unusual, I asked the driver to stop. We climbed out of the car just in time to see the saucers literally fade away as mysteriously as they had appeared. I reported the occurrence in detail to the Air Force.

I later found that an English meteorologist, Edward J. Lowe, had recorded a similar phenomenon as long ago as 1838—similar except for the fact he saw four instead of two ghostly images flying near the moon.

Perhaps you expect me to say, at this point, that I can explain exactly what I saw that evening. I am sorry to disappoint you. I cannot. I have certain ideas on the subject, but they are only hypotheses—reasonable but not yet fully confirmed.

I shall explain those ideas, but first let me say what I do NOT believe. I do NOT believe that what I saw, or anything anyone has reported seeing, were missiles or messengers or vehicles from the moon or Mars or space. I do NOT believe they were missiles or messengers or vehicles from Russia or any other foreign country.

Indeed, how simple science and life would be if every time we encountered some seemingly inexplicable fact, we could blame it on some outside force over which we have no control. Such a mode of thought is as old as man himself. Our prehistoric ancestors personalized *all* the forces of nature. Gods blew the winds, threw lightning bolts and stoked the fires that belch forth from volcanic craters.

Brilliant showers of meteors have made men fear that the end of the world was imminent. The ancients have interpreted a solar eclipse as a dragon devouring the sun and rejoiced when their beating drums and weapons frightened the dragon away.

How simple this type of science. No laboratory experiment to prove or test the hypotheses. No complicated mathematics to study the details of the process. Nothing to argue about here. For each new and unexplained fact, we invent a new god—or assume the existence of a superintelligence.

How simple—and how wrong!

Centuries of civilization have taught us the futility of inventing mysterious forces and superhuman beings. You could explain *anything* that way. Such explanations, however, are completely useless and nature falls into chaos, subject to the whim of a pagan deity instead of to the orderly processes of natural laws.

"An Uncivilized Attitude"

As a scientist, I am not bothered if I cannot give a complete, iron-clad explanation for every phenomenon I meet. Unraveling the puzzles of science is my business—as well as my pleasure. I find the world still full of unsolved problems. I look for the explanations, but I do not arbitrarily invent forces that make explanation unnecessary.

Why, then, have so many civilized people chosen to adopt an uncivilized attitude toward flying saucers? I think there are three reasons:

First, flying saucers are unusual. All of us are used to regularity. We naturally attribute mystery to the unusual.

Second, we are all nervous. We live in a world that has suddenly become hostile. We have unleashed forces we cannot control; many persons fear we are heading toward a war that will end in the destruction of civilization.

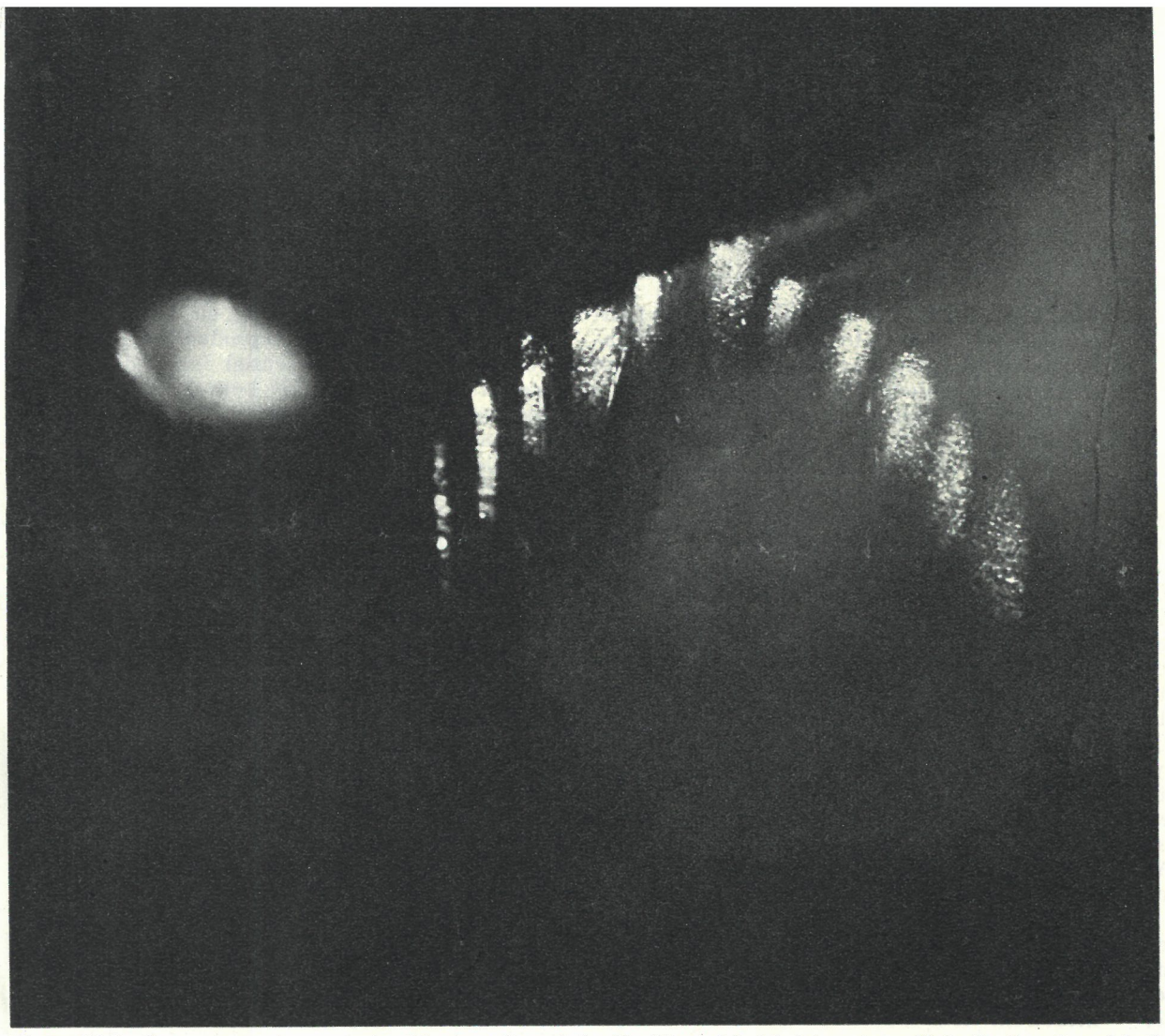
Third, people enjoy being frightened a little. They go to Boris Karloff double features.

But such analysis should concern the psychologist rather than the natural scientist, so let me hasten back to our flying saucers.

First of all, we must recognize that "flying saucers," in the public mind, cover a wide variety of objects and phenomena. Some of them, we can almost immediately dispose of, although the mere fact of their misinterpretation has been one of the chief difficulties men have encountered in getting at the basic truth.

A man sitting in the park on a calm summer afternoon scarcely realizes how intense the winds aloft may be. Perhaps real gales exist, with speeds in excess of 60 miles an hour, different layers moving in opposite directions. Light, flat objects such as newspapers or kites can be caught in an occasional whirlwind and lifted to enormous heights, where they may fly for hundreds of miles before they again reach the ground. Weather balloons, which are often released in groups rather than singly, are not at all uncommon. Indeed, most such objects lose their true identity when viewed against the sky. And it is extremely hard to recognize them.

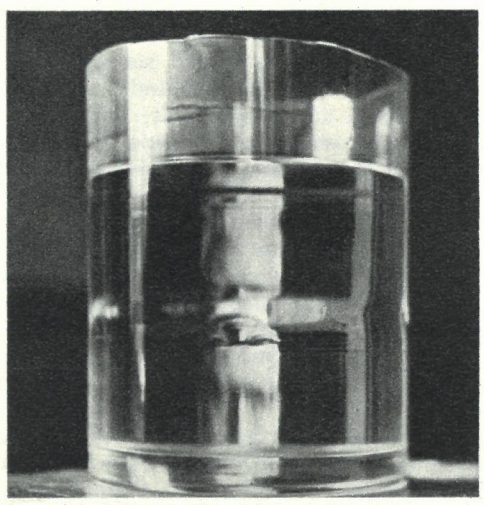
Occasional reflections from distant planes or even from the backs of high-flying birds account for some of the reports. The planet Venus has, on many occasions, produced its own series of sensations. Few people seem to realize that this planet, when at greatest brilliance, can be plainly seen in the daytime. If floating cirrus clouds overlie it, the planet may give the illusion of being in rapid motion. Most people find it difficult to focus their eyes on a distant object; hence, they see a bright blur in the sky and thus give rise to another flying-saucer story.



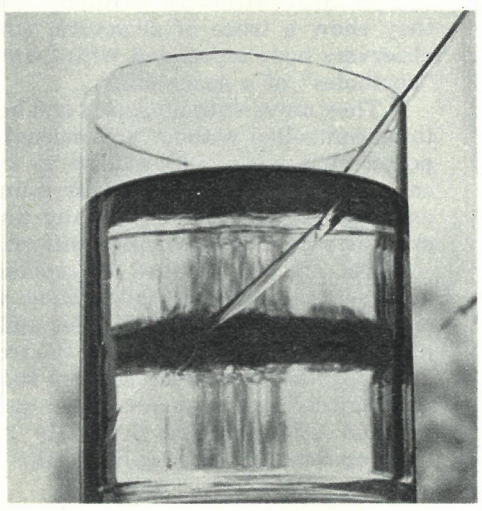
These "lights" were one of many sets of "saucers" made by Dr. Menzel in his laboratory. Note the "mother ship."

Photographed by Arthur Rothstein

Dr. Menzel begins setting up his apparatus, using a large glass jar, benzene and acetone.

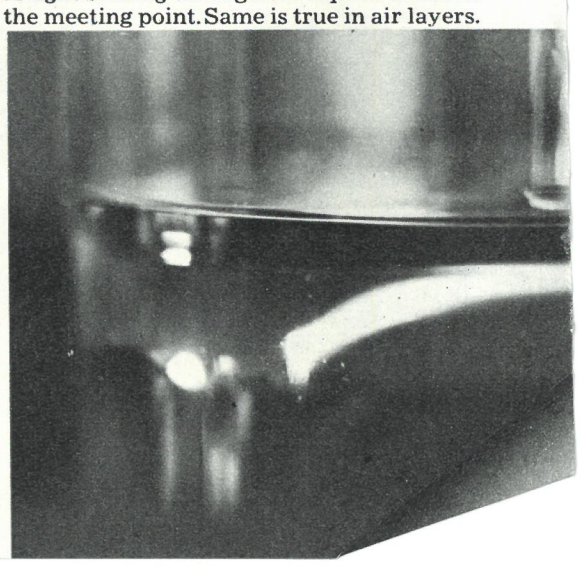


Acetone floating on benzene simulates air levels; lens effect distorts Dr. Menzel's face.



A glass rod seems to bend as it passes from one liquid to other. Light bends in this way.

A light shining through the liquids bends at the meeting point. Same is true in air layers.



But by no means all of the objects can be so dismissed. After we have eliminated the false saucers and the erroneous reports that we trace to misidentification, there do remain a number that we cannot completely write off. Such as the ones I saw myself.

The first question we are called upon to answer is this: If these objects are natural objects, why did they suddenly appear for the first time in 1947? An honest question and a basic one; for if it cannot be answered, we are in difficulties. But the answer is simple: They were seen in the skies long before 1947. Scientific literature is full of them.

England Had Durham Lights

Take, for example, the Lubbock Lights, which appeared in the sky near Lubbock, Texas, last summer and were photographed. Similar phenomena have been long reported. England was mildly excited over the Durham Lights almost a century ago.

In 1897, our papers were filled with stories about a mysterious cigar-shaped airship seen at odd places over the country. The lights and men aboard were clearly visible. Finally, the great inventor Thomas A. Edison himself disposed of the rumor.

Here is a quotation from the magazine *Nature* for May 25, 1893: "During a recent wintry cruise in H.M.S. *Caroline,* a curious phenomenon was seen. . . . Unusual lights were reported by the officer of the watch. They appeared sometimes as a mass, at others spread out in an irregular line. They bore north until I lost sight of them about midnight. . . . The globes of fire altered in their formation . . . now in a massed group with an outlying light, then the isolated one would disappear and the others would take the form of a crescent of diamonds."

The account also mentioned a "looming mirage," of which I shall have more to say later. This report interests me for two reasons: First, it would almost serve as a description of the Lubbock Lights. Second, my own theory of the Lubbock Lights was developed, and tested in my laboratory, before I found this account in *Nature*—and my theory directly associates looming mirages with the lights.

The next question is quite natural: Even granting that these phenomena have a long history, why are they so much more frequent today than in the past?

List the places where flying saucers have been seen, and you will notice that the great majority were reported in very hot areas, over deserts—in Arizona, New Mexico and Texas. For years, these states were sparsely settled.

But since the war began, they are the areas in which the most startling population growth has been tallied. Irrigation has brought farmers in. The dry heat has made tourist havens of Phoenix and Tucson. The air age has made these flat, clear-skied areas the natural locations for great bomber and fighter bases. Finally, atomic energy has chosen New Mexico as its headquarters.

In brief, there are more eyes to scan the heavens. Hence, more is seen. The answer is as simple as that. The clear skies are themselves a partial answer. Beyond two or three miles, especially toward the horizon, the milky haze cuts down visibility in Eastern areas. In the West, one is accustomed to seeing a mountain peak more than 150 miles away.

Finally, the most important question of all: If the saucers aren't superhuman or controlled by superhumans, what are they?

First, we must study the reports.

A careful analysis of all the available data indicates that—after we have subtracted the balloons, papers, distant planes, Venus and the like—a substantial amount of reliable but unexplained material still remains. This falls into several definite patterns: ovals, disks or other patterns, either shining silver by day or

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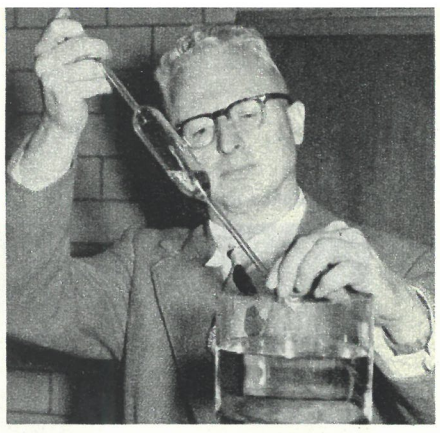


Wherever certain well-known air

luminous by night. They may appear singly, in clusters or fly in precise geometrical formation. The best-defined patterns of this type have been called the Lubbock Lights, since their best-known appearance was in Lubbock, Texas. They have, however, appeared elsewhere. Next, we have the mysterious balls of green fire. Are they or are they not related to the luminous "Foo Fighters" that occasionally seem to accompany a plane or even engage it in a mysterious sort of shadowboxing? Finally, there are the "ghost" saucers that seem to hover suspiciously around a freshly launched balloon, and rush off at some unprecedented speed—presumably to report their findings. At least four such ghosts have been reliably reported.

Many of the records refer to some tremendous distance or speed. And here I ask this question: How can an observer on the ground, from a single station and with his eyes alone, give a reliable estimate of all three figures: distance, size and speed? If you think that this is easy, try it sometime—on the moon, for example.

The reported saucers move at varied *angular* speeds, either sideways or vertical. Their unknown actual speed depends on how far away they actually are. They may "veer" sharply at any given moment. At times, the images are extremely brilliant. Sometimes, they show a trace of structure, which some observers have associated with "windows" or "portholes" of a space craft.

They move without sound and hence seem to be controlled without any normal forces of power that we would ascribe to a craft on earth. The objects are generally round or oval and bear no resemblance to any known aircraft already built or being built on earth.

But are we justified in reversing these arguments and saying that, since no terrestrial craft could have such properties and since no human beings could withstand the tremendous buffeting that the flying saucers seem to get, the objects must perforce be space ships manned by beings of decidedly nonhuman characteristics? I ask again: Is this sweeping conclusion justified? Or shall we accept temporarily what seems to be a much more reasonable alternative: that the flying saucers are not material objects at all?

The one thing that can respond instantaneously to force is a light beam. You can stand at the foot of a high mountain and with a hand mirror flash a signal from base to peak and back again, a distance of more than 10 miles, in a tenth of a second or less. But, if we see something flashing over cliff and forest with a speed of 100 miles a second or accelerating with a force 1000 times greater than that of gravity, must we conclude that it is a manned craft?

An Optical Phenomenon?

Let us, then, accept as a working hypothesis the idea that saucers may be an optical phenomenon—though nonetheless real.

To me as a scientist, this was the only course along which to proceed. And the hypothesis that these were optical phenomena, taking place primarily in desert regions, inevitably brought the next logical consideration to my mind.

In the science of atmospherics, there is a well-known condition known as "temperature inversion." It is simple enough. Normally, the air grows colder as one goes farther up from the surface of the earth. But sometimes the reverse is true, and a layer of warm air overlies layers of colder air.

During the war, I was a member and later chairman of the Wave Propagation Committee of the Joint Chiefs of Staff, which conducted a series of tests on the desert. We were studying radar images; but light behaves, in many ways, like radar. What we learned about the desert applies as much to light as to radar.

We learned that temperature inversions were, as we had expected, extremely common on the desert. During the day, the desert is extremely hot. At night (or even during the day under certain cloud conditions), the ground rapidly cools off. But the air cools more slowly. Thus, the air cools more quickly where it actually is in contact with the ground, but for some distance continues to get warmer with height. Then, well away from the ground, it begins to become cooler again.

Scientists have long known that regions of the atmosphere wherein the temperature changes rapidly with height can cause a mirage.

Mirage. That is the key to the whole problem of saucers. And, working on that assumption, I have been able to reproduce in the laboratory most of the essential features of the saucers. Much more study, both theoretical and experimental, is necessary before we shall understand this complicated problem in all its details. I am confident, however, that we can eventually produce and observe the phenomenon at about any time we wish to.

Mirage. A mirage is fundamentally an image caused by a lens of air. Since air lenses are almost never perfect, the world we see through them is distorted and unreal. Like seeing through spectacles that do not fit your eyes. Or looking in one of those highly curved mirrors in an amusement park.

And yet you see mirages every day, without really knowing it. As you drive along a highway on a hot day, the dark asphalt in the distance seems to be covered with water—a film that evaporates as the car advances. This is the ordinary mirage we familiarly associate with the desert: the thirsty traveler, the vision of a receding lake, and only sand. The water, of course, is an image of the sky, projected against the distant landscape. The light rays that produce the illusion traverse a path that is concave upward.

But give us a cool layer of air at the ground, as in the desert at night, and light rays will curve in the reverse direction, following along the surface of the earth.

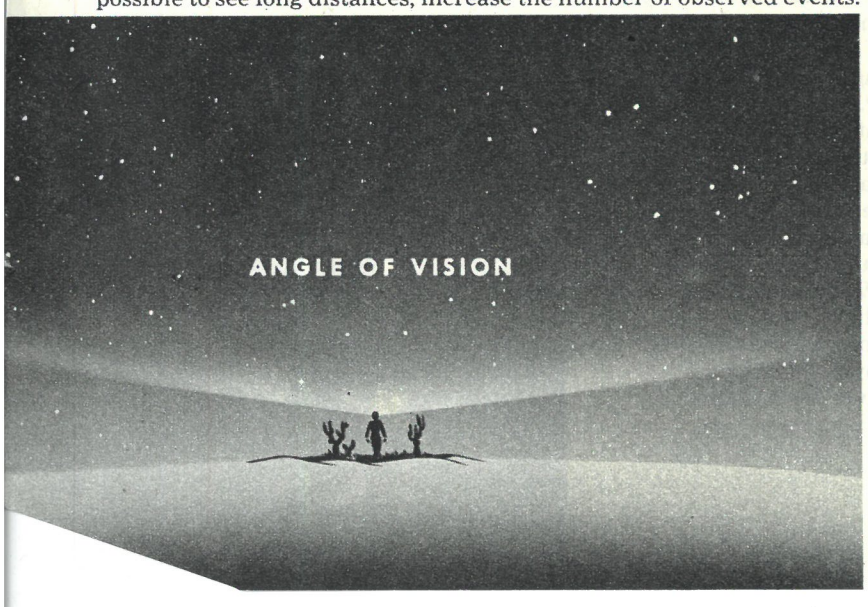
City Lights Become "Saucers"

Where the daytime mirage projects the image of the sky against the earth, the nighttime desert variety projects the image of the earth against the sky. And hence, if we have distant lights—such as those of a city—these lights will appear to float in the sky. Moreover, if the intervening air contains waves or is turbulent to any degree, the lights will appear to move, riding in on the crest of a wave, like ripples of moonlight on the ocean. If the source is a line of distant street lamps, the images appear to fly in formation—the Lubbock Light phenomenon.

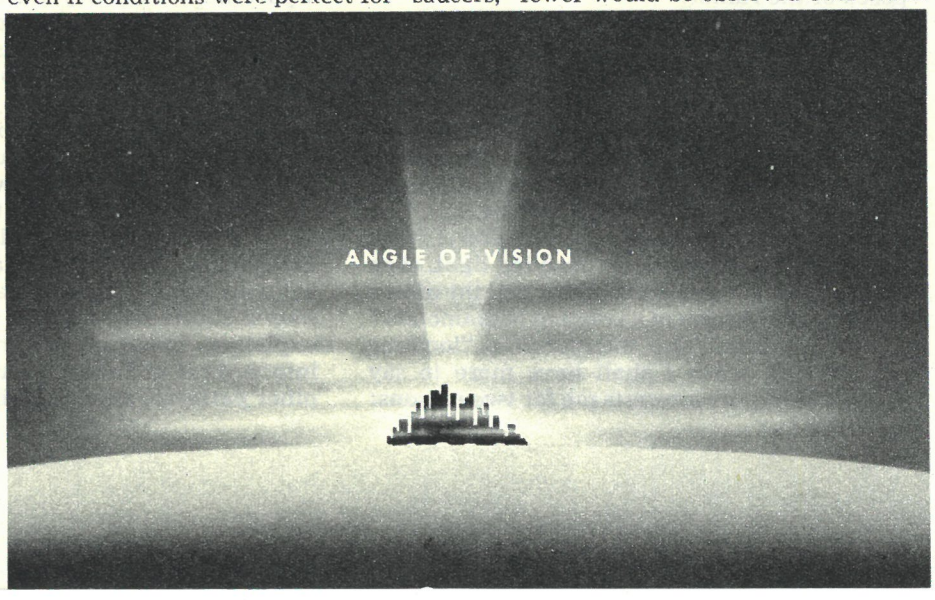
One further property of these temperature inversions serves to emphasize the effect and undoubtedly contributes to the daytime saucers. Daytime inversions are fairly common, but they usually lie higher than the ones that occur at night on the desert. You can often see them—or at least recognize their existence.

A column of smoke from a distant chimney will sometimes rise smoothly upward and then

The clear air of the desert, and the lack of buildings or of hills, make it possible to see long distances, increase the number of observed events.



In the city, the angle of vision is small and the sky is full of smoke and dust. Thus, even if conditions were perfect for "saucers," fewer would be observed over cities.



conditions exist, flying saucers become likely

spread out horizontally to form a thin layer of smoke and haze. This ceiling occurs at the point of highest temperature. Smoke, dust and all kinds of general haze tend to collect in this layer. From below or above, you may not be aware of its existence. But as you pass through it, you see a fine black line extending from horizon to horizon.

On that famous day in June, 1947, when Kenneth Arnold of Boise, Idaho, spotted from his private plane nine distant saucers moving at "fantastic speeds" along the slopes of Mt. Rainier, he may well have been flying not too far from one of these layers of inversion haze. His was the observation that touched off the saucer scare.

Let us turn to the official Air Force release and quote Arnold himself: "I could see their outline quite plainly against the snow as they approached the mountain. They flew very close to the mountain tops, directly south to southeast down the hog's back of the range, flying like geese. I watched for about three minutes —a chain of saucerlike things at least five miles long, swerving in and out of the high mountain peaks. They were flat like a pie pan and so shiny they reflected the sun like a mirror."

In Arnold's own story, there are several clues that should have pointed out the answer long ago. Anyone familiar with mountains knows that the ridges, where ascending currents of air from opposite sides meet and mix, are subject to the most violent drafts. From the Harvard and University of Colorado observatory at Climax, Colo., I have observed with a telescope the blowing snow on the ridges of 14,000-foot peaks, and have noted the billowing gusts rage along the "hog's back." It is indeed highly probable that the slopes of Mt. Rainier are equally turbulent. And, if their turbulence reaches upward into the haze, the warped layers would reflect sunlight and a progression of moves would make the crests seem to move with phenomenal speed.

And if you doubt whether mere bending or crinkling of a hazy layer could cause the bright reflection, note how a fold of a lace curtain—or piece of cheesecloth—similarly reflects the light. The reflection is brightest when the curvature is sharpest. Most daytime saucers are a variant of this phenomenon. The mirage effect is here of secondary importance.

The "ghost" balloons are perhaps the simplest of all mirage phenomena. The balloon itself is responsible. As it "punctures" some fairly high inversion, a large bubble of colder air settles down from above, forming in effect a sort of supermagnifying lens or telescope. This imperfect lens of air forms an image of the balloon. And, as the lens changes its size and shape, the distorted image darts wildly around, with phenomenal speed—like a reflection of the sun from a hand mirror.

To demonstrate some of these effects — chiefly those associated with the luminous night saucers—I prepared a simple laboratory experiment, as follows: I filled a cylindrical jar half full of benzene and carefully floated a layer of acetone on top. Gentle stirring produced a narrow region where the chemical composition changed slowly upward. Benzene has optical qualities analogous to those of cold air and acetone to those of warm air. I thus reproduced in a small space what would ordinarily require miles of terrestrial atmosphere. The liquids produce remarkable effects.

A beam of light, focused diagonally upward from a small slide projector, would ordinarily strike the ceiling. But caught in the "inversion layer," the beam obediently curved downward. Tiny globules of glycerine emulsified in the benzene scattered the light and made the beam visible. The original circular pinhole used in the projector was distorted into an oval shape and clearly marked with some pattern suggesting a surface structure.

Laboratory "Saucers"

Any motion of the liquid—produced as the result of a rocking—made the saucer slip about. Turbulence, caused by a delicate stirring of the medium near the light beam, gave dozens of flying disks. The color effects, resulting in part from the glycerine globules, were startling and beautiful. Finally, when I replaced the single pinhole with a row that simulated distant street lights, the resulting images behaved and looked like the Lubbock Lights.

These considerations do not explain everything. The green fire balls are still something of a mystery, though many will prove to be meteors. Prof. Fred L. Whipple of Harvard has called my attention to the fact that the color probably arises from the presence of magnesium in the meteor itself. This metal, well known to be an abundant constituent of the rock meteors, emits green light when incandescent. The reported slowness of motion may be due to great distance, associated with the clarity of the desert skies.

This mirage-phenomena theory includes the flying saucers seen on radarscopes. The same sort of conditions which cause optical mirages cause radar mirages as well, as any radar expert will hasten to tell you. They cause television mirages too. Everyone knows cases where a television station, normally miles out of range, suddenly comes in powerful and steady.

Also, the stress laid on the optical peculiarities of air over deserts should not be misleading. The temperature inversions of which I speak are common over the desert (and over coastal waters) but they are not limited to such areas. They can appear anywhere, and do. A bad smog, for example, is usually a sign of a temperature inversion. But they are more frequent over deserts, which explains in part the fact that saucer reports are more frequent over deserts.

You, too, can have flying saucers in your home. Perhaps not as elaborate as the ones I have just described, but nevertheless adequate to demonstrate some of the effects. You may simulate the gradual bending that causes a mirage by using a sharp reflection at a water surface.

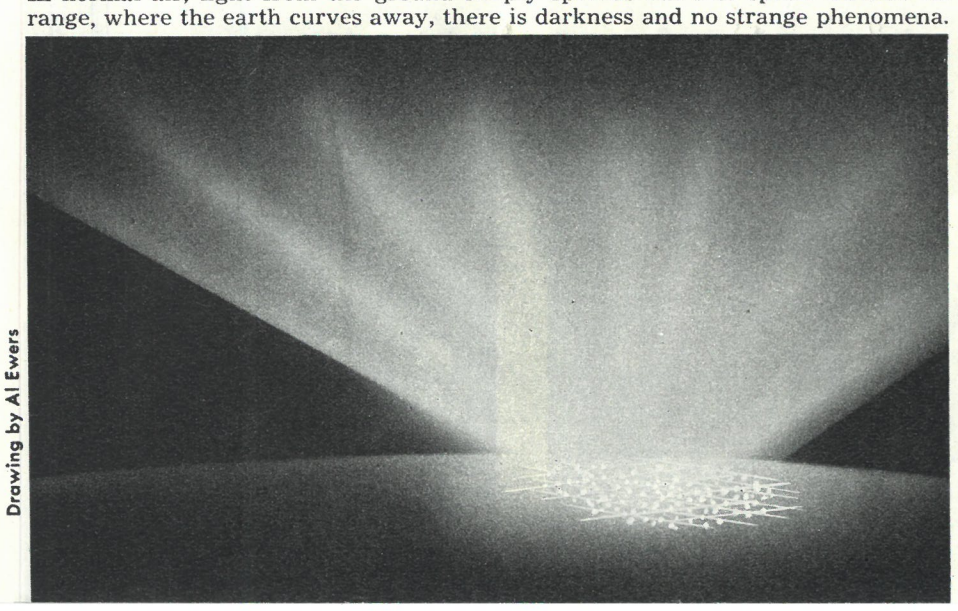
Fill the kitchen sink to the brim and set up a candle or row of candles close to the edge along one side. A box with a series of pinholes illuminated by a light or candle is even better. Now face the lights from the opposite side of the sink, keeping your eye close to the water surface and see the bright reflections. Now have someone gently stir the water and produce waves. The lights will float and travel—and even show the disklike form characteristic of a reflection from the trough of a wave. One can even reproduce the saucers with light reflected from the surface of coffee in a cup.

As I have said earlier, these experiments are suggestive rather than definitive. More work is necessary to prove the phenomenon. The analysis indicates, however, a clear plan for future study and research. I believe that these experiments will eventually cause the saucer scare to vanish — most appropriately, into thin air, the region that gave birth to it.

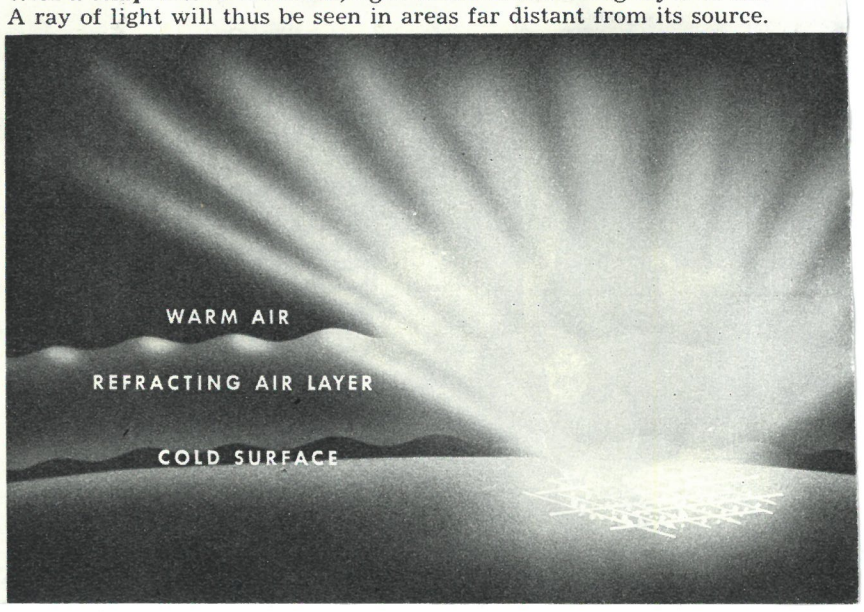
END

The forces entrusted with the defense of the U. S. from the skies still must look for "flying saucers." In its next issue, LOOK will tell the story of this secret hunt by our aerial defenders.

In normal air, light from the ground simply spreads out into space. Outside its range, where the earth curves away, there is darkness and no strange phenomena.



With a temperature inversion, light bends in refracting layer of air. A ray of light will thus be seen in areas far distant from its source.



Drawing by Al Ewers

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CONTENTS

MESSAGE TO PARENTS
AN OPEN LETTER TO AMERICAN MOTHERS by General Mark Clark 10

KILLERS IN QUARANTINE
SOLITARY CONFINEMENT 12

ART FOR STYLE'S SAKE
MODEL FOR MANIKINS 17

OPEN WIDER, PLEASE!
HOW YOU LOOK TO YOUR DENTIST 20

SALT WATER RENDEZVOUS
MY DATE WITH A SEA MONSTER 22

LOVELINESS UNLIMITED
THE TRUTH ABOUT BEAUTY CONTESTS by Russell Patterson 24

BURNING GHATS
DEATH FIRES ON THE GANGES 28

SPECTATOR SPORTS
EVERYBODY WANTS TO GET INTO THE ACT 30

CAMERA ARTIST: VI
CHRISTA 33

OPERATION UNIVERSE
IS ANOTHER WORLD WATCHING US? by Gerald Heard 36

TELEVISION
VIDEO VENUSES by Ken Murray 41

TAKE IT OFF!
REDUCE—WITH F.A. 44

ALSO
SEE THE WORLD IN PICTURES 6
FACES IN FOCUS 16
SEEING STARS: Jimmy Durante 32
LONDON RIOT 40
FEAR IN MID-AIR 48
LETTERS 50

ON THE COVER

Jean Moorhead, 17, is the second sunkist Californian (Lynn Roebuck was the first) to make SEE's cover this year. Under contract to 20th Century Fox, she attends school on the lot, lives in Santa Monica.

Standing 5'4½ , Jean measures an ideal 34-24-34, but continues to improve on perfection by swimming and dancing. She is also studying voice, often appears on television.

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IS ANOTHER

The latest on the Flying Saucers— Greatest Mystery of Our Times

by Gerald Heard

THE Flying Saucer Mystery, in my opinion, is the biggest mystery modern man ever has had to face. Here, briefly, is how it began:

On June 24, 1947, Kenneth Arnold, a Boise, Idaho, business man, flying his own plane near Mount Rainier, Washington, sighted a fleet of nine gleaming disks skidding above and along the snowy mountain chain. He judged they were going 1700 mph.

Since then, there have been similar sightings from Southern California to Newfoundland—in fact, all around the world. Commander Augusto Orrego sighted a group of such saucers spinning high in the air above the Chilean Navy base in Antarctica. They have been seen over the Dutch East Indies and the Philippines; over the Arabian Red Sea; over the Mediterranean; over France and Britain. New sightings are taking place week by week.

And what do the sighters say they see? A disk, a thing like a huge quoit — sometimes one, sometimes several. The disk travels faster than any jet—the best observers report the highest rate of speed—yet it can hang as still as a star. Then, without warning, they testify, off it shoots, so fast that the eye can hardly track it.

It can make a right angle turn at this headlong speed and can stop dead. It makes no sound. Often it travels on edge, as though it were a car wheel rolling along the sky. Most eerie of all, the whole disk glows with its own uncanny light. So at night it can be seen by its own phosphorescence. Seen in daylight, observers report, the rim of the disk "shimmers."

Some trained observers also report another kind of mystery air ship—a long black tube with rows of strange lights.

What is the explanation of these sky-craft? "War-fear-hysteria" was the first. "The whole thing's hallucination caused by international jitters." But, if that were true, the sightings since 1947 should have been the first, and they were not. Long before there were planes or dirigibles, observers now and then did notice strange vessels flying in the high sky. Away back in the last century, there were solitary visitors, looking us over. Today we have flotillas of them.

The second explanation was advanced last February by the Office of Naval Research. What observers had taken for flying saucers, we were told, were really plastic weather balloons.

Does this explanation cover the facts? It does not. Some of the objects were balloons, no doubt. Many certainly were not. From scores of first-rate observations, let us quickly review six cases that prove the saucers are not balloons but a new kind of super-sky-craft with prodigious powers.

First there is the well-known case of Naval Commander Robert McLaughlin and a number of his fellow workers at White Sands Rocket Proving Ground in New Mexico. A flying saucer actually rushed into view while a team from that base, equipped with a theodolite telescope, was observing a drifting balloon. Their special instruments enabled this team to gauge the height and the speed of such visitors, which were seen several times. On was 56 miles high and was going 18,000 mph.

Or take Case Two. In July 1948, Pilot Clarence S. Chiles and his co-pilot John B. Whitted were flying an Eastern Airlines passenger plane near Montgomery, Alabama, on their standard course. Suddenly a huge black cigar-shaped object, lit down its length with uncanny lights and giving out a great wake of flame, rushed at them head on. By a masterly maneuver the huge cigar swung up and out of their way and they felt their own plane heave in the stranger's wash.

The third, fourth and fifth cases also involved airline captains and co-pilots—all unusually reliable witnesses. While flying over Arkansas,

In this report, based on the latest eye-witness and circumstantial evidence from all parts of the world, the eminent British scientific writer Gerald Heard offers an astonishing explanation of what has been called the greatest mystery confronting modern man. He rejects the Navy's recent announcement that the disks are weather balloons.

The four-year-old Saucer mystery has been enlivened by sensational new sightings this past spring and by the appearance of two new best-selling books — Frank Scully's *Behind the Flying Saucers* (Popular Library, 25¢) and Heard's *Is Another World Watching?* (Harper, $2.75.)

An internationally-known author and lecturer, Heard formerly broadcast over the B.B.C., pioneered many of Britain's significant psychical experiments, now lives in California. Among his published works are *Pain, Sex ana Time, God in History* and *The Eternal Gospel.*

WORLD WATCHING US?

Captain Jack Adams and co-pilot G. W. Anderson of Chicago and Southern Airlines saw a disk sweeping around them in a great curve of inspection. A blinding blue-white light flashed from its top; along its rim, fluorescent patches made it glow.

This Disk Was Seen by Passengers and Crew

Case Four—that of Captain R. Adickes and co-pilot R. Manning—is even odder. These two pilots roused their passengers near South Bend (Ind.) to watch a bright red disk that had rushed up beside them, rolling along on its edge like a glowing cartwheel.

The fifth case is that of two pilots—Captain W. T. Sperry and Co-pilot W. Gates—who, between Washington, D. C., and Nashville, saw a disk shining dazzling blue-white and racing around them.

The sixth case, however, beats all of these in the uncanny. It concerns Aviation Editor Janssen of the Morristown (N. J.) *Daily Record*, who one day took a photo of four "disks" in flight. A few weeks later two other disks approached a plane in which he was flying and —they held him up! He says his engine stopped as two disks poised above him and yet, he was surprised to learn, his plane did not fall. When the disks made off, his plane's nose went down, the engine started and he flew back to his field.

This story tends to confirm the account of Captain Charles Lane and a co-pilot who in 1945, flying at 24,000 feet over The Hump between China and India, suddenly saw a white disk-shaped object rushing up behind them, at terrific speed. It rose above them. Lane's instrument board "went haywire." He switched off the motors but the plane's nose did not go down. The two pilots felt a slight joggle. The plane had been stopped.

Then the disk above them suddenly swooped off into the sky. Lane switched on the engines and they started up.

Captain Lane has no doubt he had the same experience as Mr. Janssen and co-pilot.

Here, then, are six cases that blow the balloon theory to pieces. Obviously these men are not frauds, hysterics or ignoramuses. It would be hard to find better witnesses.

Are "All" Saucers Really Weather Balloons?

Interest in flying saucers is like undulant fever, high one day, subnormal the next. The latest slump occurred last February following the Office of Naval Research statement that *all* saucers were really weather balloons. Since February, however, sightings have continued to come in, as fast as snowflakes in a storm.

Naturally, the Naval Research Office report dealt only with the balloons the N.R.O. sent up. These only travel some hundreds of

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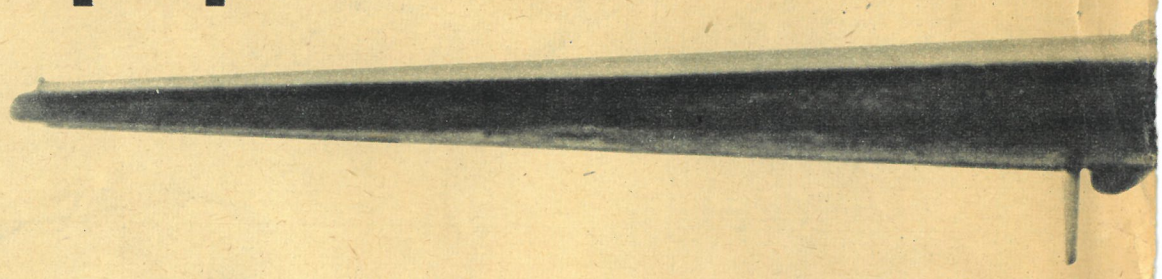
anding in africa called possible as "saucermen" step up surveillance of life on earth



AIR FORCE JET-PROPELLED "FLYING WING," DESIGNED FOR PHOTO-RECONNAISSANCE, IS ONLY KNOWN U. S. AIRCRAFT RESEMBLING OFT-SIGHTED, MUCH-MOOTED SAUCER

miles and then burst. That is what they are supposed to do, since they are a loss if they fall outside the U.S. What, then, are we to make of two of the latest reports, from Central Africa! These certainly give new confirmation to the saucer saga. Indeed, these two reports are the most striking evidence we have had so far.

Take, first, the sighting made just as the N.R.O. was trying to debunk saucers. It was from Elizabethville in the Belgian Congo, and the sighting was made by dozens of people. This is a key spot on the world map, for here is one of the world's biggest deposits of Uranium.

Two glowing saucers suddenly appeared, circling over the pits from which Uranium is mined. Suddenly they shot off, zigzagging like snipe.

When Elizabethville authorities sent up a pursuing Spitfire plane, the saucers let the pilot get so close that he could not only judge their size—they were the standard model some thirty-six feet across—he could even see the whirling rim. After fifteen minutes the saucers accelerated and the Spitfire was left hopelessly behind.

Eleven People Watched This Skycraft

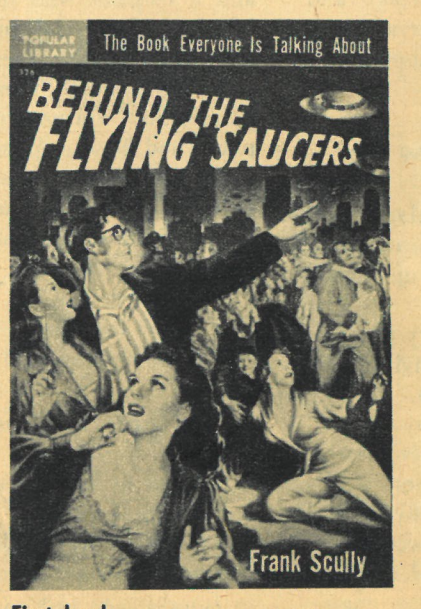
News of the second of the big recent sightings comes from East Africa. A week after the N.R.O. issued its "explanation—on the 19th of February, at 7:20 A.M., in weather of perfect visibility—a Captain Bicknell and his co-pilot were flying the East African Airways plane *The Lodestar* with nine passengers on board. Approaching Mount Kilimanjaro, Africa's highest (19,300 feet), they saw a dazzling object hanging in the sky some 10,000 feet above the peak. The pilots alerted the passengers. For seventeen minutes, eleven people watched—and they had strong glasses with which to do so.

The object, they agreed, was two hundred feet in length, a giant tube with a hind fin. This type has been seen a number of times. It hung there some time quite still. It had three bands or rings around it, but apparently it had no windows. Suddenly it shot away. In three minutes it covered sixty miles, a pace of 1200 miles an hour. There was no vapor trail or exhaust.

At last the watchers lost sight of the tube as it rose still higher. Fortunately, however, a cinema camera with a telephoto lens was on board and a shot was taken. The film, flown to Johannesburg, has been developed and has been shown at Durban, capital of Natal. All who have seen it are convinced. It shows a craft that no earthly air-manufacturing base could dream of making. And it shows this giant craft maneuvering as no one has ever seen a man-made airship sail. That film when shown publicly should, if not settle the controversy, at least debunk the debunkers.

But if the flying saucers are not balloons, what are they? Consider what they can do. They can fly at 18,000 mph. That means that someone has solved the "speed-heat problem." At 2000 mph, we know the friction of the air on any plane's surface would heat it until it would fry the crew inside. So whoever has made these saucer-craft has some metal that will resist intense heat and, even more important, will not conduct it.

But wonderful as that is, far more wonderful is the power that drives these craft—at a speed that would send a saucer around the earth in an hour. As it happens, we can make a rather better guess regarding this miraculous power than we can regarding the saucer's metal.



First book on mystery of interplanetary space spies: ***Behind the Flying Saucers*** (Popular Library, 25c).

That blinding blue-white light shooting from the craft, those dotted bands of dazzling fluorescent glow around them, suggest a new sort of power. Up till now we have only been able to power our engines by burning fuel. We realize that there could be better ways—atom power, for example. All radiation, we know, is energy. The most powerful rays are the short rays—the ultra violet, "invisible light." When we see an X-ray tube in action we are watching a light that can pierce solids. When we are in the dark with such a tube, although we cannot see the X-rays themselves, we do see the odd violet-blue glare that accompanies them. And that is precisely the kind of light which observers have seen pouring from the saucers.

Radiation energy also would be soundless, as the flying saucers are. For, while our engines move things by a series of explosions, radiation does so by steady pressure.

But even if we knew exactly how a radiation engine works, we probably could not use it. X-rays taught us that. It is safer to tease a rattlesnake than to let short-wave radiation play around you. Thick layers of lead alone can stop invisible light from burning us, making our skin scorch and rot off our bodies. And that fact brings us to the most exciting question regarding these saucers: the question of who is inside them, who drives them.

If the force that powers them is direct radiation power, then the crew must be the crowning wonder. For just see what crew members have to stand. First they have to live inside a shell radiated all through with intense, deadly short-wave energy. So, unless they have some screen inside that protects them, they must be creatures immune to X-ray burns. No human being is—indeed nothing made of protoplasm is—as far as we know.

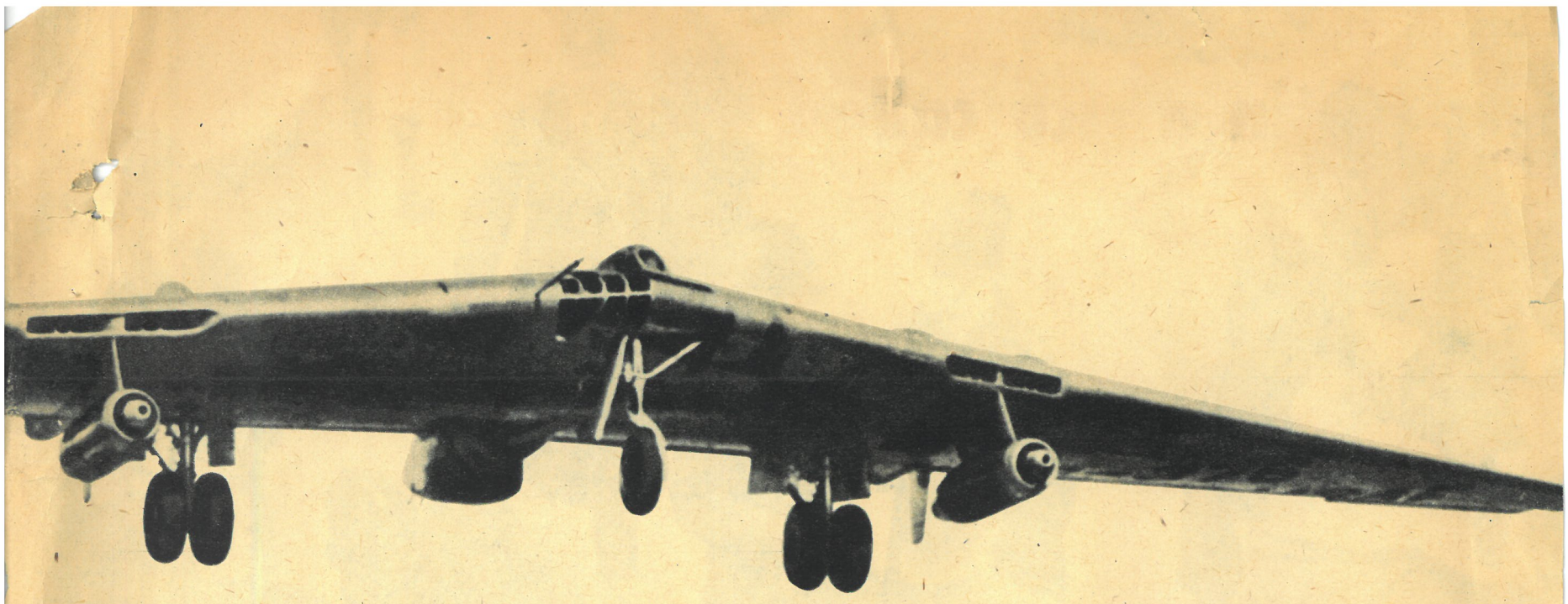
Who Could Live Inside a Saucer?

Again, the observers at White Sands who gauged the speed to be 18,000 mph pointed out that here was a prime puzzle. For these craft not only were going at speeds that would make any plane burn up; they also turned, flicked around, shot up, in a way no plan can. If any plane behaved in that manner, it would kill anyone inside it. What is called the Gs—the amount of pull we can stand when our bodies are kicked about, wrenched too quickly from the grip of Gravitation—that anchorage limits how fast we can be moved without coming to pieces.

So we have to face the fact that no human being—indeed no animal, even the size of a cat—could live inside a saucer when it is at full spin.

Then what *is* inside them? There are only two possible answers. The first is that, though the Gs (the increases of gravitational pressure) cannot be withstood by large animals, they *can* be by insects. A bee, for example, would not be incommoded in a saucer. But bees (we say) of course couldn't be the controllers! No one would have dissented till recently. But now Von Frisch (the great bee expert) has found that bees can and do draw maps, make calculations, describe directions and distances to each other. And if bees can do such things, why shouldn't super-bees "man" a saucer—say, bees from such a planet as Mars where, it is now conceded, insects could be living, and insects far ahead of ours.

The only other explanation of the way the saucers lunge is that they have no one inside them—they are "remote controlled." But remotely controlled from where? Last



October, four men of a house-building team were sitting at lunch on a fine noon-day looking out over the great estuary, the Solway Firth on the west Atlantic coast of Scotland. They saw a saucer come rushing up from the ocean. It was going at prodigious speed, but dived, hit the water, rose unhurt, zoomed in a grand curve and went off south.

Remote control? Who could be controlling that? But on the other hand who could live inside it? Wouldn't even a super-bee die of shock?

That brings us to two other questions. One asks: Are the saucers, perhaps, magnetically powered? The other asks: What is their origin?

Where Do They Come From?

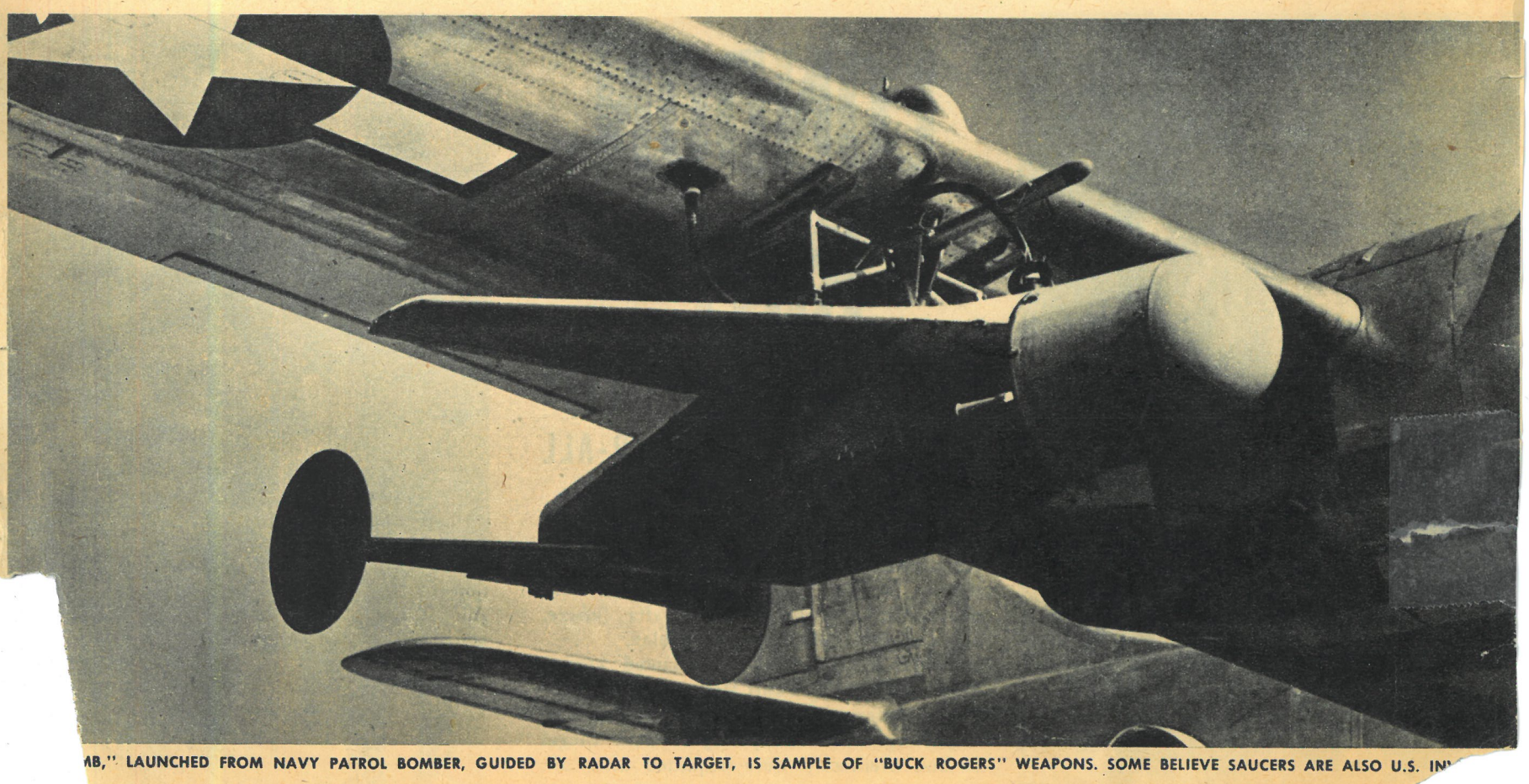
If the saucers are magnetically powered, that would mean that they would have plenty of energy, but it would also mean something far more remarkable. For if the saucer flies in a magnetic field which it generates, then the saucer itself, and whoever might be inside it, could be in a small gravitational field of its own. Each saucer would then be a little planet by itself, *unaffected by the pull of the earth!* For research today seems coming to the conclusion that gravitation and magnetism may be the same thing. So, however much the saucers might spin, the crews would be no more upset than we are by the spinning of the earth on which we stand. And it is that hint that they do fly in a little field of their own (which would account for the saucer that hit the Scotch sea and was quite unhurt) that brings us to the final, highly interesting question—"Whence"? Where do they come from?

If they are magnetically powered, then not only could living creatures inside them remain unaffected by their appalling speed; such craft with such speed would compel us to look further afield than any part of the earth for their home base. In short, the saucers are the only craft that come up to the demands of a space ship. Remember again their speed, their power to resist shock, the heights they fly at, their magnetic energy—All these things point in one direction: The saucers need not come from this earth. They can be visitors from another planet.

One further question is worth answering. What are these sky craft doing over Equatorial Africa? I think the reason for their visit to the Congo is quite clear. Since we began experimenting with the atom, our "out of this world" watchers naturally have shown particular interest in our sources of atom bomb ore.

Their inspection of Mount Kilimanjaro is even more interesting. We have seen that their craft may be magnetically powered. Now the earth's magnetic field here and there shows oddities, oddities that upset our visitors' craft. These oddities are most obvious near great geological "faults" (fissures in the earth's crust). The greatest of these is The Great Rift, a crack which runs from the Red Sea in Palestine down to the great mid-African plateau out of which Kilimanjaro rises.

Our visitors are mapping our magnetic field, it may be. Perhaps they are fiddling with the zipper that holds the earth's coating of rock over its volcanic heart. Perhaps—interesting thought!—they are getting ready for a landing.



MB," LAUNCHED FROM NAVY PATROL BOMBER, GUIDED BY RADAR TO TARGET, IS SAMPLE OF "BUCK ROGERS" WEAPONS. SOME BELIEVE SAUCERS ARE ALSO U.S. IN

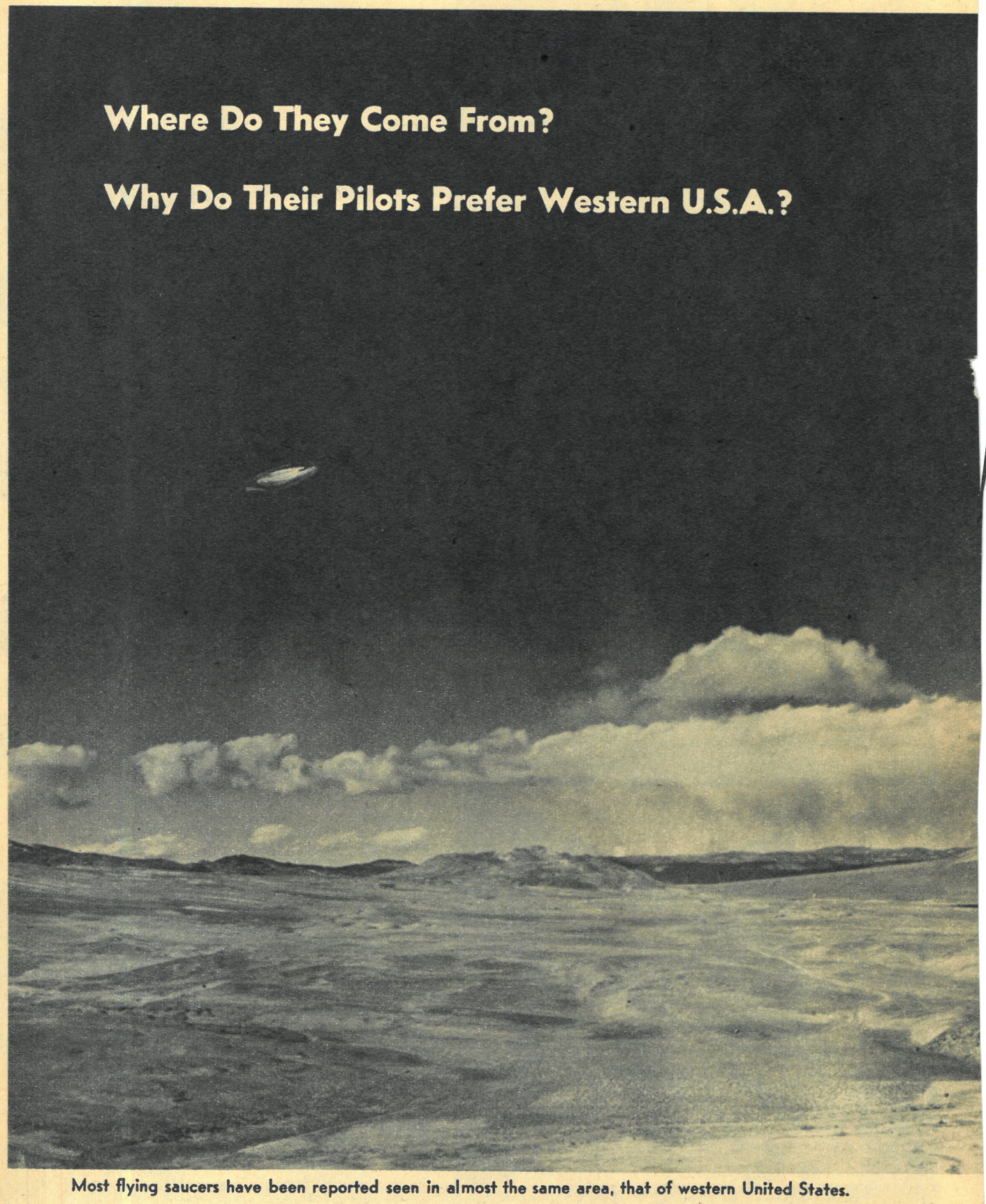
PIC
The Modern Magazine for Men
NOV. 1952
25c
HOW DO SAUCERS FLY?
By Nuclear Physicist John Campbell
Where Are The Ducks?
CANADA'S SHOCKING SURVEY
Roy Rogers' Empire
FIRST PRO GAME
Are The Records Wrong?
SEA-GOING JOBS
and a treasure hunt
Jungle Party Unbelievable

PIC - Nov. 1952

HOW DO SAUCERS FLY?

Where Do They Come From?

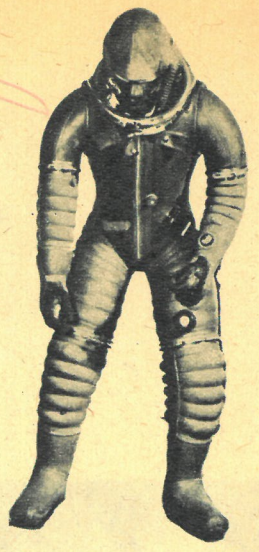
Why Do Their Pilots Prefer Western U.S.A.?

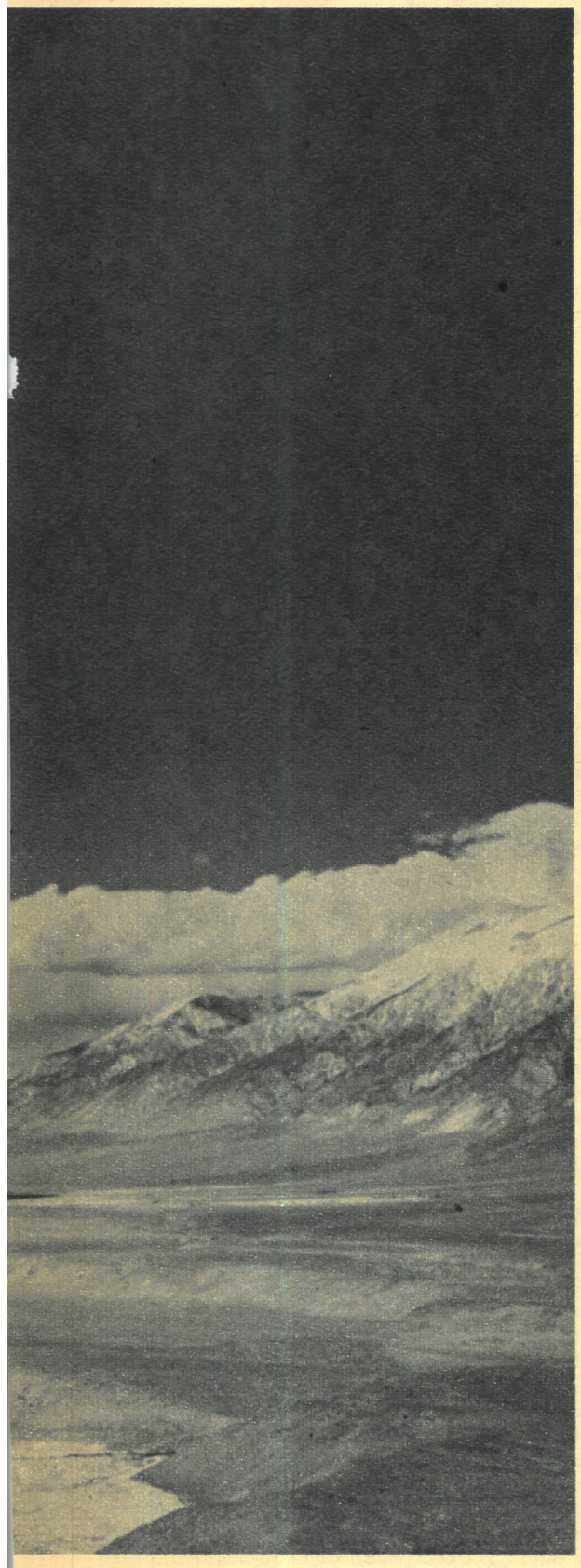


Most flying saucers have been reported seen in almost the same area, that of western United States.

By John W. Campbell, Jr.

NUCLEAR PHYSICIST
AND SCIENCE EDITOR





THE TROUBLE with flying saucers is that what they do doesn't seem to make sense, it's been difficult to get pictures of them or communicate with them, and yet anybody—any people—who can build such marvelous machines *must* be sensible—supremely sensible indeed. There *must* be some completely reasonable explanation for the purpose behind their curious behavior.

Those machines represent a science so far ahead of ours that it's on a different level. The workings of electronics and radar and radio would have thrown Isaac Newton, Michael Faraday, and the great scientists of the 1850's-1880's for a complete and total loss. The electron wasn't discovered until after 1890; whole realms of science were unguessed at that time.

Of course, we, today, are much smarter. We know all those things . . . but no man can ever guess how much he *doesn't* know. Dalton, the English chemist who developed the atomic theory of chemical reaction in its modern form, never dreamed that the "atoms" he talked of were more complex structures than the chemicals he knew!

We don't know, and can't possibly guess, how much we do NOT know—until somebody goes blithely skimming along overhead in a flying saucer.

The saucer's don't have wings; they don't have rockets, jets, propellors, or any other known gadget. Quite literally, they have "no visible means of support." No law of nature known to present science can explain them. And people who know more science than we do are, quite evidently, not appreciably less intelligent than we are ourselves. (Nor are they, necessarily, any more intelligent. Without increasing our *intelligence*, another 100 years of science will yield a lot more *knowledge*.)

Flying saucers, by their very existence, indicate somebody with brains that really work is flitting around up in the sky. But their actions are so strange—so seemingly illogical! Why, if they can, don't they establish communication with us? And surely, minds that can figure out such marvelous machines can figure out how to establish communication.

No one has ever taken a satisfactory picture of the saucer. There have been some exceedingly poor, badly focused, blurred and distorted snapshots—but they're useless. Why—in view of the literally thousands of sightings—haven't there been pictures? Are the saucers real, after all?

They are real. The reason for lack of pictures is easy to understand; they fly either low and fast, or high and slow. A machine flying 600 to 1000 miles an hour at an elevation of 1,000 feet or so is in sight for a few seconds. At 10,000 feet, even if the ship is loafing along at 100 miles an hour, you can't take a photograph that's any good, unless you use an enormous camera with a 48-inch-long telescopic lens. And *that* (*Continued on page* 73)

HOW DO SAUCERS FLY?

(*Continued from page 17*)

kind of camera takes many long minutes to set up and focus. An ordinary snapshot camera would produce a film with a dust-spot on the negative.

We don't realize what an amazingly good optical device the human eye is. It can take a snapshot in 1/100th of a second; it's ready all the time, and it's always focused and loaded with film. At a ball game, you can follow the action of the players and see the ball shooting from outfielder to first base. Try taking a snapshot of that scene, sometime, and get a picture that shows all the important details of the ball in flight!

Another thing; a flying saucer can pass you, flying at 5,000 feet, only about two miles away, and you can look right at it, watch it loaf along nice and easy, and never even know it! You may have seen half a dozen flying saucers in the last two weeks. Look closely at the next ordinary passenger transport that flies by, two or three miles off, and consciously consider whether or not it's a saucer. You can't tell at that distance. Seen almost edge on, it could be a saucer, a plane, or a dirigible-shaped object of bright aluminum. You *think* it's a plane—but is it? If it's a flying saucer, and you're expecting a plane, would you notice any difference until it was right overhead, and relatively low at that? And would you, then, be able to photograph it?

I live in New York City area, but I have never consciously seen a jet fighter plane in flight, except right at the airfields.

Photographs of our own jet planes would be exceedingly hard to get—if the jet plane wasn't willing to cooperate!

Furthermore, the flying saucers have been sighted almost entirely in the "square states" area—in the area of the western central United States. Practically none have been seen elsewhere.

And that's the most mysterious part of the whole performance. No nation of Earth can have developed those machines; the science required is so great an advance over our knowledge as to indicate that the builders are a full stage of science ahead of us. They've evidently gone *beyond* nuclear science, nuclear power. Atomic energy is old to them; they've developed the next level of science, the one earthly beings haven't found yet.

If an Earthly nation had done so, and done it not less than five years ago, that nation by this time would have made such advances that they would be releasing a thousand other devices based on the new principles. When men invented vacuum tubes, they suddenly had a new tool, and progress in electronics zoomed. With the invention of the cyclotron, in 1932, it was only 10 years to the release of atomic energy. With the invention of the atomic pile, it was an immediate step to commercial use of radioactive isotopes. Further, in developing the atomic devices, we also developed new plastics, new pumps, new devices.

Any nation that advanced a whole step to a new level of science would inevitably advance in a hundred ways. It would show, and show quickly.

The Flying Saucers are NOT terrestrial secret weapons. They would have been the product of science that would inevitably manifest itself in a hundred other ways as well.

So—Earth is being visited by people from other worlds. Not Mars. Mars is too thoroughly inhospitable a world for a high life-form to develop and acquire intelligence. It's too cold and dry and arid and airless. Not Venus, it's too hot, too dry, and too dusty. Only Earth, of the planets of this Solar System, is hospitable to life as we know it. The Visitors must be from planets of another Star. Perhaps Alpha Centaurus, four and a half light-years away. Perhaps Sirius, 9 light years distant. But they certainly have science at least one full step ahead of us.

By a full step, I mean this sort of thing: The first modern science to develop was chemistry; the science of molecules. Electrical engineering-electronics-radio was the next level of science, the next step. It deals not with *molecules,* but electrons and forces like magnetism and electric charges—the particles and forces that *make up* molecules. Our most recent step has been atomic energy—the step beyond electrons, magnetism and electrical charges. We've only begun to work with it.

The Visitors ships do things that are self-evidently impossible by any of the laws *we* know. Since we don't believe in supernatural or magical phenomona, we must accept that they've figured out the level beyond atomic energy.

I don't believe they can stand the reported accelerations of 35 times Earth's gravity a bit better than we could—but I feel sure they've conquered gravity, because their wingless, jetless, rocketless planes can hang as though they weighed nothing. And if they can neutralize gravity, probably they can concentrate it, or reverse it. If you could do that, you could accelerate at 10,000 times Earth's gravity and not be hurt a bit—not even feel it! Because instead of having the *ship* speed up, and *push* you along, the force would pull you-and-the-ship equally and together. You wouldn't even notice the pull!

MEN PAST 40

Afflicted With Getting Up Nights, Pains in Back, Hips, Legs, Nervousness, Tiredness.

If you are a victim of the above symptoms, the trouble may be due to Glandular Inflammation. A constitutional Disease for which it is futile for sufferers to try to treat themselves at home. Medicines that give temporary relief will not remove the cause of your trouble.

To men of middle age or past this type of inflammation occurs frequently. It is accompanied by loss of physical vigor, graying of hair, forgetfulness and often increase in weight. Neglect of such inflammation causes men to grow old before their time — premature senility and possibly incurable conditions.

Most men, if treatment is taken before malignancy has developed, can be successfully NON-SURGICALLY treated for Glandular Inflammation. If the condition is aggravated by lack of treatment, surgery may be the only chance.

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The Excelsior Institute is devoted exclusively to the treatment of diseases of men of advancing years. Men from all walks of life and from over 1,000 cities and towns have been successfully treated. They found soothing and comforting relief and a new zest in life.

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RECTAL COLON
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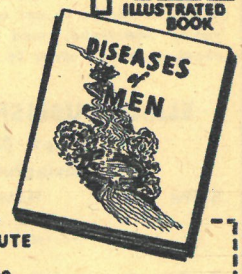

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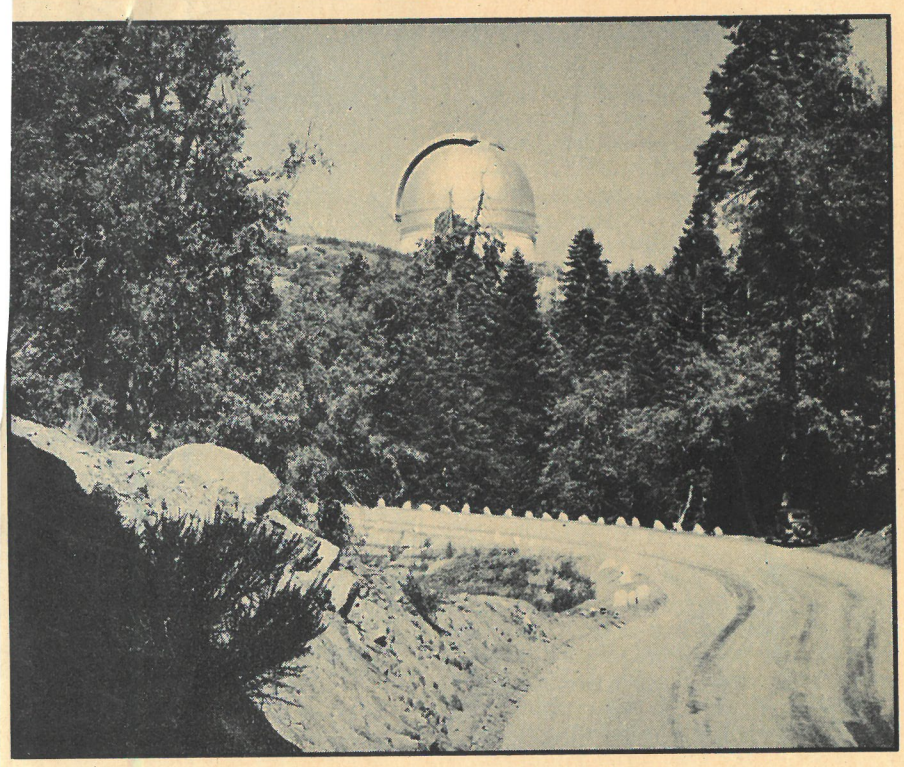


Palomar is a great lure for tourists.

THE GATEWAY TO THE STARS

Escondidoans Lead the Happy Life— With All the World Around Them

THOSE proverbial Spanish explorers were, of course, the first to see the area which they called Escondido—meaning "hidden." It was a fitting name, for the valley was surrounded by hills. And hidden it stayed for many years, as travelers wore paths up and down the coast. It wasn't until 1835, when there was a secularization of the missions which broke up properties and made them open to private ownership, that the community began to flourish. Then Juan Alvarado received a grant to the land in 1843 after some political dickering with Mexican Governor Manuel Micheltorena. He ended up with a neat parcel of land measuring out 12,653 acres and settled back to the comfortable life of a don.

In 1855, when the old don had died, the huge rancho was again parceled out and divided as the heirs began to sell pieces to Judge Oliver Witherby, San Diego's Collector of the Customs. It all ended up with the judge owning most of the property, which he turned around and sold for $8,000—enough to send any modern-day real estate man into a tizzy.

The rancho changed hands a few more times and then was subdivided and—smack in the center of the old rancho—the town of Escondido was laid out.

The new small landowners went busily to work with such sundry projects as irrigation, cultivation and the other sordid aspects of ripping a living from the soil. By the time of the bustling land boom of the '80's in Southern California, Escondido was a thriving agricultural community. When the great break in values came, the community, like the rest of those in the lower half of the state, felt it and felt it bad. But it recovered, paid off the big bonded indebtedness for the irrigation project the community leaders had started and—by 1906—was on its own with no bills due.

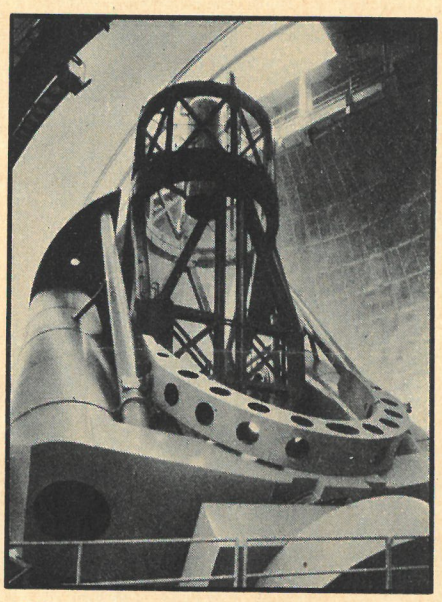
Oranges became a prime crop and more and more settlers arrived to take up the happy business of growing them. Soon poultry and dairying came into their own. Grapes, too, became a profitable enterprise. Escondido had its roots firmly in the rich soil of Southern California.

Today the population is a stable 7000 in town, and another 30,000 live on the farmland around Escondido. Old folks favor the

soft climate of the inland town which nestles in the heart of San Diego County. It's a peaceful enough community, yet there's enough going on to keep people hustling.

There's a scad of things for Escondidoans to boast about and, with pardonable pride, they are prone to do it on occasions. It's just 15 miles to the beaches of the Pacific; a few miles in another direction is fine fishing; four miles the other way is Lake Wohlford; the desert resort of Borrego Springs is just off down the road a spell. For those interested, there are also the historic San Luis and Pala Missions. And, not to be forgotten, Del Mar racetrack is a hop over the hill. Being the focal point for such diversified goings-on is a source of satisfaction to the local folk.

One of the biggest lures for a weekend motorist out of LA is Mt. Palomar, which Escondido seems to feel is just another feature set up to make the town more interesting. The local boosters have dubbed the town Gateway to the Stars as an ex-



Not a telescope to peer through but a mirror.

pression of their feelings about Palomar.

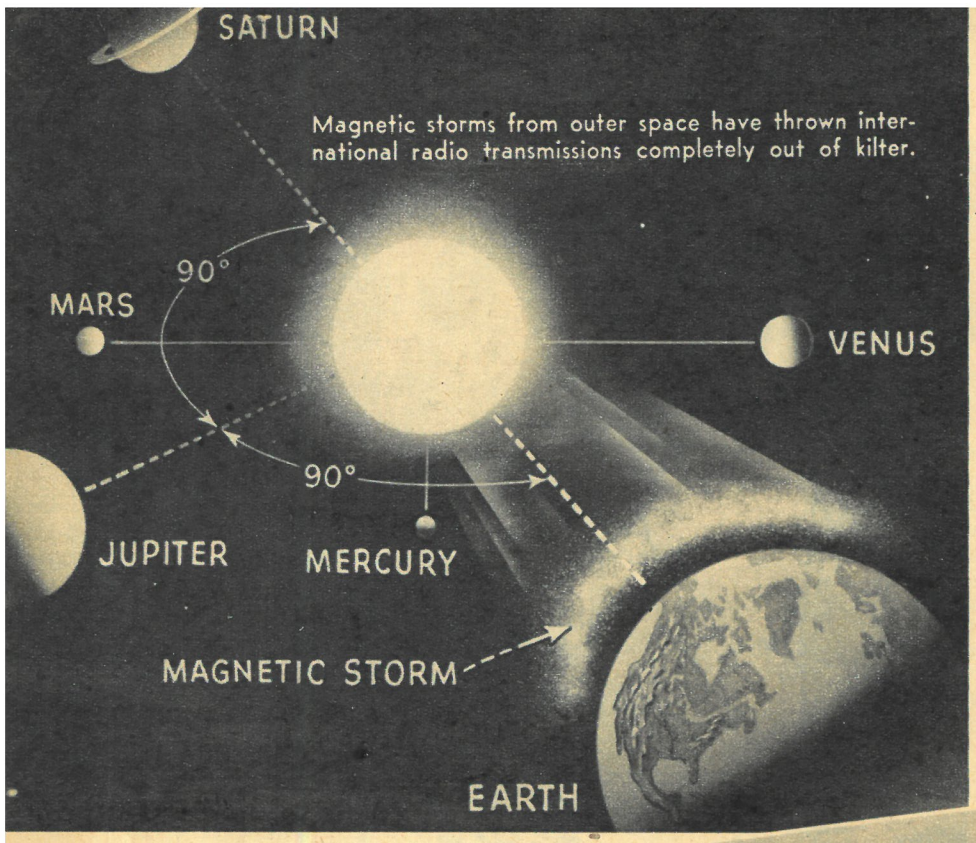
The 200-inch telescope is the world's largest camera for studying the stars. It's four times as large as the next biggest but —so that no one will be disillusioned— it's not a gadget which you can peer through. It's for photo work only. Visitors view the telescope from a glass-enclosed cage—getting too close can raise havoc, as the heat from one's body can throw the adjustments off!

The telescope does enlarge the stars some. But its prime task is to collect light from the most distant star which—aimed at a photographic plate for hours—sometimes can give astronomers a permanent record of what's going on in the heavens. It's a $7 million camera.

So Escondido sits happily back, pleased that it's surrounded by farms and resorts and seashores and mountains and science and history. It knows where it's been in the scheme of things and knows where it's going—and is happy with the outlook.

The Martians have been sending radio signals to us for years. The sooner we learn to decipher their code and let them know we are friendly, the sooner an alliance can be formed between their planet and the world we live in

The last time Mars was nearest to Earth radio engineers picked up signals which could not be traced to any transmitters in our world.



Sir, Jul., 1953

evidence had been reported but was quickly forgotten.

Only recently, the Japanese astronomer and authority on Martian life, Dr. Tauneo Saheki, reported what appeared to be an atomic explosion on Mars. In addition, Dr. Saheki has described brilliant flashes of light of several minutes' duration which may be signals emanating from the red planet.

Finally, he announced the reception of radiation which appears to be of artificial origin on ultra-sensitive electronic equipment. These electronic waves appear to be *signals*.

This cumulative evidence has convinced Dr. Saheki that the possibility of intelligent life on Mars should be investigated seriously. Since he is one of the world's foremost observers, many other astronomers concur with his opinion.

(*Continued on page* 54)

IS MARS TRYING TO CONTACT US?

By WALTER B. REYNOLDS

ARE there intelligent beings on Mars who are trying to communicate with Earth?

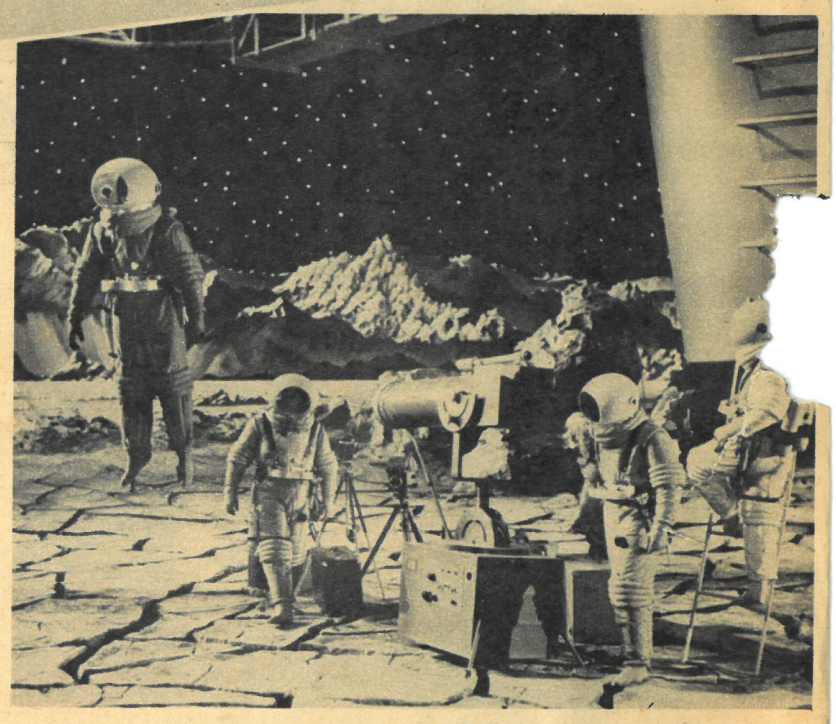
Only a few years ago, the answer would have been no. Now, however, more and more scientists are coming to the conclusion that highly-advanced Martians do exist.

There is evidence that the people of Mars are attempting to contact us, and they may have been making such efforts for decades.

The rapid advance of civilization on this planet is arousing the interest of inhabitants of some other world—perhaps several other worlds. The flying saucers—which have been observed for many years but have only been sighted in great numbers and frequency since we split the atom—are only one indication.

That the flying saucers may be of interplanetary origin has been cautiously admitted by our own Air Force.

Astronomers and other scientists have recently re-examined great mass of evidence—entirely apart from the flying saucers—establishing the existence of interplanetary interest in Earth goings-on. Most of this



Hollywood's version of space men landing on the moon is not as half-cocked as it seems to be.

and killed an imaginary hold-up man. In the third instance she shot and killed an imaginary man who was torturing an imaginary little girl.

Many hypnotists will point out that the "killings" committed in this experiment were actually morally justified. This is quite true, but a person with no moral compunctions will "kill" while under hypnosis when the basic suggestion is wholly immoral. He has only to be reassured by the hypnotist that he will not be caught, and that some benefit will accrue to him from his "crime."

In the last analysis, hypnotism is merely the manipulation of the imagination. The unscrupulous hypnotist has only to implant the suggestion into a thoroughly decent and God-fearing human being that —for example—a great wrong will be righted or that the suffering of thousands will be prevented to get him to kill.

On many occasions, I have seen hypnotized subjects take harmless water-pistols and go through all the motions of killing someone.

A virtuous woman could easily be seduced by a conscienceless hypnotist. While she was under hypnosis, he would have only to suggest to her that they were man and wife and very much in love. He could also erase from her conscious memory any recollection of what had transpired.

ANY competent hypnotist can easily induce a girl of utmost modesty to embrace a strange man on a public stage. He can make teetotalers act as though they were drunk, and the most staid persons perform the most ridiculous acts—bark like dogs, kill imaginary flies, and so on indefinitely. The severest symptoms, such as terrible pain or total blindness, can be induced through suggestion.

Post-hypnotic suggestion can also be used for nefarious purposes. We have all seen hypnotists give a subject a suggestion to be carried out, say, "fifteen minutes after awakening." The time limit may not only be fifteen minutes. It may also be many hours or even days. But the suggestion will be followed faithfully.

Some of the actions can be so bizarre as to give every indication of insanity. Thus the power of an unscrupulous hypnotist over his subjects becomes obvious. Actually, the hallucinations of the insane are no more vivid than those of persons who have been thoroughly hypnotized.

The dangers of hypnotism in the hands of unskilled "healers" are manifold. We have already mentioned that delay in seeking proper treatment may often result. Attempted cures, too, often cause psychic ills to become worse than before.

For example, an unskilled hypnotist may try to cure a stutterer. Since the suggestion that stuttering will cease has been firmly implanted, the "patient" stops stuttering. But the basic cause of the stuttering still remains, and must find release in some way. The stutterer can become a sex pervert.

Only the trained psychiatrist who is also a hypnotist should attempt to treat psycho-somatic ills by hypnotism.

Hypnotism can be more dangerous than dope. It may alleviate the pain of a patient temporarily, but if the cause of the disturbance has not been removed the pain will recur. Thus the quack repeats the suggestion, again producing temporary relief. His victims become as dependent on him for relief as morphine addicts on their drug.

Instilling the hypnotic habit in patients has made many a quack rich, while the habit itself becomes chronic, causing the patient to become progressively more and more mentally degraded.

Finally, hypnotism in the hands of unskilled practitioners can cause dangerous psychic upsets, resulting in symptoms ranging from severe emotional disturbances to schizophrenia. Both the competent physician and psychiatrist know of these dangers, but they are seldom common knowledge of the average layman.

Hypnotism can provide amusing and harmless entertainment. It is also capable of great good and great evil. It should, therefore, be practiced only by persons of good character who respect its powers to the utmost. This is as true of the amateur "home hypnotist" as it is of the stage performer and the psycho-therapist.

THE END

IS MARS TRYING TO CONTACT US?

(*Continued from page* 27)

THERE is other evidence that, prior to our development of electronics, the Martians have attempted to signal Earth by means of enormous and easily-visible geometrical configurations on the planet's surface. Such configurations which do not occur in Nature —the equilateral triangle, for example—speak a universal language which would be understood by intelligent life anywhere.

Dr. Schiaperelli—discoverer of the famous "canals" of Mars which, to many, prove the existence of intelligent life on that planet—also reported that he had observed an enormous cross centered inside a circle in one of Mars' deserts. These figures were obviously artificial, and they remained visible and unchanged until the distance between Earth and Mars increased to the point where they could no longer be seen.

The next time Earth neared Mars, the cross-inside-a-circle had vanished, but it had been replaced by another artificial figure.

Most astronomers pooh-poohed Dr. Schiaperelli as being "too enthusiastic." But since his discovery, a great deal more evidence of the same sort has accumulated.

As far back as 1907, Prof. A. E. Douglas, who, like Schiaperelli, was one of the world's greatest astronomers, observed on Mars an enormous octagon outlined in dark color—perhaps geometrically planted vegetation. A few weeks later the octagon had vanished. It was *replaced by a five-pointed star!*

These changes could be accomplished only by a highly advanced people.

According to Prof. Douglas, the star-shape he observed on Mars was at least 1200 miles in diameter. A similar five-pointed star-shape, outlined in dark colors and having a diameter of at least 1000 miles, was observed on Mars by Harvard University astronomers in 1924.

In March, 1939, Dr. E. C. Slipher of Lowell Observatory made the long journey to South Africa in order to view Mars under the best possible conditions. Among the many photographs he took of the planet were of a region designated as the *Solus Lacus*. It is a dark area of presumed fertility, about the size of the United States.

These photographs proved that the shape of the *Solus Lacus* had altered greatly, perhaps through deliberate intent of the Martians.

Were the alterations another attempt of the Martians to attract the attention of Earth? Many astronomers thought so.